Data for the Biology and Diet Studies of Spiny Dogfish *(Squalus acanthias)* in Hecate Strait, B. C. August 1977 and June 1978

G. A. McFarlane, R. J. Beamish,
M. W. Saunders, M. S. Smith, and T. Butler

Department of Fisheries and Oceans
Fisheries Research Branch
Pacific Biological Station
Nanaimo, B. C. V9R 5K6

February 1984

Canadian Data Report of Fisheries and Aquatic Sciences No. 443

84- 4030 /

Canadian Data Report of Fisheries and Aquatic Sciences

These reports provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of other journal publications or reports. The subject matter of Data Reports reflects the broad interests and policies of the Department of Fisheries and Oceans, namely, fisheries management, technology and development, ocean sciences, and aquatic environments relevant to Canada.

Numbers 1-25 in this series were issued as Fisheries and Marine Service Data Records. Numbers 26-160 were issued as Department of Fisheries and the Environment, Fisheries and Marine Service Data Reports. The current series name was changed with report number 161.

Data Reports are not intended for general distribution and the contents must not be referred to in other publications without prior written clearance from the issuing establishment. The correct citation appears above the abstract of each report.

Rapport statistique canadien des sciences halieutiques et aquatiques

Ces rapports servent de base à la compilation des données de classement et d'archives pour lesquelles il y a peu ou point d'analyse. Cette compilation aura d'ordinaire été préparée pour appuyer d'autres publications ou rapports. Les sujets des Rapports statistiques reflètent la vaste gamme des intérêts et politiques du Ministère des Pêches et des Océans, notamment gestion des pêches, techniques et développement, sciences océaniques et environnements aquatiques, au Canada.

Les numéros 1 à 25 de cette série ont été publiés à titre de Records statistiques, Service des pêches et de la mer. Les numéros 26-160 ont été publiés à titre de Rapports statistiques du Service des pêches et de la mer, Ministère des Pêches et de l'Environnement. Le nom de la série a été modifié à partir du numéro 161.

Les Rapports statistiques ne sont pas préparés pour une vaste distribution et leur contenu ne doit pas être mentionné dans une publication sans autorisation écrite préalable de l'établissement auteur. Le titre exact paraît au haut du résumé de chaque rapport.

Canadian Data Report of

Fisheries and Aquatic Sciences No. 443

February 1984

DATA FOR THE BIOLOGY AND DIET STUDIES OF SPINY DOGFISH (*Squalus acanthias*) IN HECATE STRAIT, B. C. AUGUST 1977 AND JUNE 1978

by

G. A. McFarlane, R. J. Beamish, M. W. Saunders,

M. S. Smith, and T. Butler

Department of Fisheries and Oceans

Resource Services Branch

Pacific Biological Station

Nanaimo, British Columbia V9R 5K6

(c)Minister of Supply and Services Canada 1984

Cat. No. Fs 97-4/443 ISSN 0706-6465

ABSTRACT

McFarlane, G. A., R. J. Beamish, M. W. Saunders, M. S. Smith, and T. Butler. 1984 . Data for the biology and diet studies of spiny dogfish (Squalus acanthias) in Hecate Strait, B. C. August 1977 and June 1978. Can. Data Rep. Fish. Aquat. Sci. 443: iii + 410 p.

A total of 89 and 86 tows were completed in August 1977 and June 1978, respectively. All sets were made in the N. E. Hecate Strait area. This report summarizes the data that are analysed in another publication. Data include catch, bridge log information, and species composition by set and information from biological sampling including length-sex summaries, maturity summaries, age and growth information and stomach contents for dogfish and for incidental species when sampled.

Key words: spiny dogfish, Hecate Strait, diet, biology.

RÉSUMÉ

McFarlane, G. A., R. J. Beamish, M. W. Saunders, M. S. Smith, and T. Butler. 1984. Data for the biology and diet studies of spiny dogfish (Squalus acanthias) in Hecate Strait, B. C. August 1977 and June 1978. Can. Data Rep. Fish. Aquat. Sci. 443: iii + 410 p.

Au total, 89 et 86 traits de chalut ont été effectués en août 1977 et juin 1978 respectivement. Tous les mouillages ont été réalisés dans le secteur nord-est du détroit d'Hécate. Le rapport résume les données analysées dans une autre publication. Le document traite des prises et contient des renseignements tirés du journal de bord et des données sur la répartition des espèces par mouillage. Il renferme également d'autres données établies à partir d'un échantillonnage biologique, y compris des renseignements récapitulatifs sur la répartition selon la longueur, le sexe et la maturité, des indications sur l'âge et la croissance de même que sur le contenu de l'estomac des aiguillats et des espèces secondaires échantillonnées.

Mots clés: aiguillat commun, détroit d'Hécate, régime alimentaire, biologie.

INTRODUCTION

This report presents data collected during 1977 and 1978 for a study of dogfish diet. The analysis of these data is reported separately.

METHODS

The principal study area was Dogfish Bank, situated in the northwest corner of Hecate Strait, from 54°N to Rose Spit. This area has historically supported a commercial crab fishery and is also considered an important rearing ground for young flatfish. The surveys took place August 8-27, 1977 and June 8-30, 1978. During both surveys the commercial fishing vessel, ARCTIC HARVESTER, on long-term charter to the Department of Fisheries and Oceans, was utilized. The 1977 survey was scheduled for June when crabs are moulting, however, because of mechanical problems with the charter vessel, the survey was rescheduled for August.

During both surveys, the ARCTIC HARVESTER fished a West Coast Flat Trawl with a 25 mm (1") (stretched mesh) codend liner, 26 m (85') headrope and 38 m (124') footrope; and a Diamond 5 midwater trawl with a 3.8 cm (1.5") (stretched mesh) codend. A Marinovich 3.8 cm (1.5") Gulf Coast shrimp trawl was used in 1977, replaced by a Marinovich 3.8 cm (1.5") Gulf Coast semi-balloon shrimp trawl in 1978. A West Coast High-Lift Flat Trawl with 25 mm (1") codend liner was also fished during the 1978 survey.

All sets were made on Dogfish Bank with the exception of some exploratory midwater trawls in Hecate Strait and Dixon Entrance in which walleye pollock and juvenile dogfish were the target species (Fig. 1, 2). All sets for adult dogfish were made on bottom, and were of 15-60 min duration. Catches were sorted by species and weighed. Dogfish and pollock from each set were sampled and when time permitted, incidental species were sampled.

Dogfish were sampled either by measuring the total catch or by randomly selecting tubs of fish from very large catches. All fish from the total catch were sampled for length, sex, maturity, and stomach contents. Fish from the randomly selected tubs were sampled for length and sex and a further 50, representative of the size composition of the catch, were sampled for maturity and stomach contents as well. In addition, during the 1978 survey, fecundity samples were taken on all fish sampled from sets 34-86.

Stomach contents were processed and most identified immediately. In the case of doubtful items a later identification was made in the laboratory aboard the boat. The volume of stomach contents was estimated to the nearest cubic centimeter (cc). Volume estimates were periodically checked using a graduated cylinder. The percentage volume of the various food items was then estimated. In most cases stomachs contained only a few food items. When possible, fish and crabs were identified to species.

Spines from the second dorsal fin were collected for age determination (Ketchen 1975) during both surveys.

RESULTS

During the 1977 survey, a total of 89 sets were completed, 62 with dogfish and 27 with walleye pollock and juvenile dogfish as the target species (Fig. 1a, b). During 1978, a total of 86 sets were completed, 75 with dogfish and 11 with pollock and juvenile dogfish as the target species (Fig. 2a, b). Set information is presented in Appendix Tables 1 and 2.

Species composition by haul for each survey are presented in Appendix Tables 3 and 4. The common and scientific names of all species captured during the surveys are listed in Appendix Table 5.

Spiny dogfish

A summary of the biological samples collected from dogfish during each cruise is listed in Tables 1 and 2. Dogfish were present in 66 of the 89 sets made in 1977 and in 68 of the 86 sets made in 1978. Catch rates (kg/hr) are summarized by set in Tables 3 and 4. Catch rates averaged 1606 and 1182 kg/hr during 1977 and 1978, respectively.

A total of 6450 and 9137 dogfish were measured for total length in 1977 and 1978, respectively. Length frequencies by survey and by sex are presented in Figures 3 and 4. Length frequencies by set and sex are presented in Appendix Tables 6 and 7.

Spines for age determination were collected from 986 fish from set 9 in 1977 and from 983 and 999 fish from sets 8 and 69, respectively, in 1978. Spines from up to 50 fish were collected from all other sets in 1978. Growth curves by sex for set 9 (August 1977) are presented in Figures 5a, b, c. Growth curves by sex for sets 8, 69, and all other sets combined (June 1978) are presented in Figures 6a, b, c; 7a, b, and 8a, b, c, respectively.

A total of 1152 and 1724 dogfish were examined for maturity in 1977 and 1978, respectively. Summaries of maturities by survey and sex are presented in Tables 5 and 6. Maturity codes (Beamish and Smith 1976) used during the study to describe gonad development are presented in Table 7. Fecundity by length and maturity state are presented in Table 8.

During the August 1977 and June 1978 surveys 2417 and 3006 stomachs were examined. Of these, 746 (30%) and 633 (21%) respectively were classified as empty. Stomach contents (volume) by set are presented in Tables 9 and 10 for 1977 and 1978, respectively. A summary of occurrence and percent volume of prey items by survey is presented in Tables 11 and 12.

Walleye pollock

A summary of biological samples collected during the 1977 and 1978 surveys is presented in Tables 13 and 14. A total of 2092 and 1613 pollock were measured for fork length in 1977 and 1978 respectively and length frequencies by set are presented in Appendix Tables 8 and 9.

Analysis of maturity data, age and growth, and stomach contents is complete and reported in Thompson (1981).

Other species

Summaries of samples collected from other species during August 1977 and June 1978 are presented in Tables 15 and 16, respectively.

Data collected on these species has not been included in this report but are available by written request.

ACKNOWLEDGMENTS

The authors would like to thank the crew of the M/V ARCTIC HARVESTER for their cooperation during these surveys and K. Rutherford for her assistance proofing text and tables.

REFERENCES

Beamish, R. J. and M. S. Smith. 1976. A preliminary report on the distribution, abundance, and biology of juvenile spiny dogfish (Squalus acanthias) in the Strait of Georgia and their relationship with other fishes. Fish. Mar. Serv. Res. Dev. Tech. Rep. 629: 44 p.

Ketchen, K. S. 1975. Age and growth of dogfish, Squalus acanthias, in British Columbia waters. J. Fish. Res. Board Can. 32: 43-59.

Thompson, J. M. 1981. Preliminary report on the population biology and fishery of walleye pollock (Theragra chalcogramma) off the Pacific coast of Canada. Can. Tech. Rep. Fish. Aquat. Sci. 1031: 157 p.

Table 1. Summary of dogfish sampled, ARCTIC HARVESTER, August 1977.

Set no.	Length			Mat.	Stomach contents	Age	Sampling Remarks[1]
	Male	Female	Total				
2	5	15	20		20		T.C.
3	93	210	303		63		Random 15 tubs; 12 L/S, 3 L/S/stom.
4	75	242	317		40		Random 15 tubs; 13 L/S, 2 L/S/stom.
5	56	123	179		54		10 tubs; 7 L/S, 3 L/S/stom.
6	2	12	14		14		T.C.
7	53	202	255		51		Random 15 tubs; 13 L/S, 2 L/S/stom.
8		2	2		2		T.C.
9	65	930	995			976	Random first 1000 fish.
10	33	131	164		49		est. Random 1/2 T.C., 7 tubs L/S, 3 tubs L/S/stom.
11	81	135	216		63		Random 10 tubs; 7 L/S, 3 L/S/stom.
12	39	50	89		53		Total catch. 1 tub L/S, 3 tubs L/S/stom.
14	27	184	211		46		Random 15 tubs; 12 L/S, 3 L/S/stom.
15	19	187	206		44		Random 15 tubs; 12 L/S, 3 L/S/stom.
16	59	267	326		58		T.C., L/S; 3 tubs L/S/stom.
17	61	103	164		56		T.C., L/S; 3 tubs L/S/stom.
18	6	14	20		20		T.C.
21	1	14	15	15			
22	1	74	75	74	76		T.C.
23		2	2	2	2		T.C.
24		23	23	23	23		
25	2	7	9	9	9		

Table 1 (cont'd)

Set no.	Length			Mat.	Stomach contents	Age	Sampling Remarks[1]
	Male	Female	Total				
26	1	30	31	29	31		T.C.
27	19	27	46	46	47		
28	1	63	64	33	64		T.C.
29		7	7	7	7		
30	1	56	57	40	57		
31		7	7	7	7		
32	13	146	159	47	77		
33	35	127	162		55		T.C.; 3 tubs L/S, 4 tubs L/S/stom.
34	12	102	114	59	59		T.C., L/S
35	5	54	59	22	59		
36	14	20	34	34	34		T.C.
37		99	99	24	22		Random 10 tubs; 7 L/S, 3 L/S/stom./mat.
38		82	82	31	31		T.C.; 5 tubs L/S, 3 tubs L/S/stom./mat.
39	24	169	193	20	58		First 10 tubs; 7 L/S, 3 L/S/stom.
40	81	118	199	58	58		First 10 tubs; 7 L/S, 3 L/S/stom./mat.
41	110	100	210		60		est 1/2 catch; 7 tubs L/S, 3 tubs L/S/stom.
42	10	1	11	11	11		T.C.
43	8	6	14	14	14		
44	5	188	193	47	47		First 15 tubs; 11 L/S, 4 L/S/ stom./ mat.
45		61	61	25	61		Random 4 tubs L/S/stom.
46	3	74	77		67		Random 5 tubs L/S/stom.
47	7	150	157	44	68		First 10 tubs; 5 L/S, 5 L/S/stom.
48	8	127	135	37	65		First 10 tubs; 5 L/S, 5 L/S/stom.
49	2	120	122	34	58		First 10 tubs; 5 L/S, 5 L/S/stom.

Table 1 (cont'd)

Set no.	Length			Mat.	Stomach contents	Age	Sampling Remarks[1]
	Male	Female	Total				
51	8	96	104		104		T.C.
52	4	84	88		88		T.C.
53	3	10	13	13	13		T.C.
54	7	4	11	11	11		T.C.
55	9	3	12	12	12		T.C.
56	3	6	9	9	12		T.C.
57	1	2	3	3	4		T.C.
58	24	3	27	27	27		T.C.
59	5	10	15	15	15		T.C.
60	5	6	11	11	11		T.C.
61	12	15	27	27	27		T.C.
62	9	28	37	37	37		T.C.
68	1	11	12	12	12		T.C.
69	2	3	5	5	5		T.C.
80	2	11	13	13	13		T.C.
81	3	16	19	19	19		T.C.
82	60	57	117	117	118		T.C.
83	12	14	26	26	26		T.C.
85	1	1	2	2	2		T.C.
86	0	1	1	1	1		T.C.
Tot.	1207	5242	6450	1152	2417	976	

[1]Abbreviations in sampling remarks
T.C.- total catch processed
L - length
S - sex
stom.- stomach contents
mat. - maturity
age - spines

Table 2. Summary of dogfish sampled, ARCTIC HARVESTER, June 1978.

Set No.	Length			Age	Mat.[1]	Stomach contents	Sampling remarks[2]
	Male	Female	Total				
1	74	224	298	51	51	51	T.C., L/S.; first 50 stom./mat./age
2	52	100	152	50	49	49	T.C., L/S.; first 50 stom./mat./age
3	63	186	249	50	48	50	T.C., L/S.; first 50 stom./mat./age
4	58	184	242	50	49	50	T.C., L/S.; first 50 stom./mat./age
5	29	110	139	50	50	50	T.C., L/S.; first 50 stom./mat./age
6	1	3	4	4	4	4	T.C.
7	7	192	199	50	49	110	T.C., L/S.; 110 age/mat.
8	449	536	985	983	51	102	Random first 1000; age 1/2 catch.
9	124	206	330	51		51	T.C., L/S.; random first 50 stom./age
10	37	56	93	50	28	50	T.C., L/S.; random first 50 stom./age
11	128	294	422	50	49	50	Random first 20 tubs L/S, first 50 stom./ mat./age
12	47	257	299	50		48	Random first 20 tubs L/S, first 50 stom./ age
13	44	255	299	41		41	T.C. L/S; first 40 stom./age
14	53	149	202	50		50	T.C. L/S; first 50 stom./age
15	105	336	441	49		50	T.C. L/S; first 50 stom./age
16	15	54	69	68		68	T.C.
17	2	0	2	2		2	T.C.
18	1	16	17	16		17	T.C.
19	0	23	23	23	21	23	T.C.
20	2	24	26	26	26	26	T.C.
21	1	6	7	7	7	7	T.C.
22	6	172	178	50	50	49	T.C., L/S; first 50 stom./mat./age
23	14	239	253	51		51	T.C., L/S; first 50 stom./mat./age
24	3	55	58	58	57	58	T.C.
25	13	241	254	50	47	50	T.C., L/S; first 50 stom./mat./age
26	10	236	246	51		51	T.C., L/S; first 50 stom./mat./age
27	1	13	14	12	14	14	T.C.
28	0	6	6			6	T.C.
29	15	30	45	44	30	45	T.C., L/S; first 30 mat./age

Table 2 (cont'd)

Set no.	Length			Age	Mat.[1]	Stomach contents	Sampling remarks[2]
	Male	Female	Total				
30	19	56	75	46	44	46	T.C., L/S; first 46 stom./mat./age
31	22	43	65	50		64	T.C., L/S/stom.; first 50 age
32	61	109	170	51		51	T.C., L/S; first 50 stom./age
33	22	27	49	48		49	T.C.
34	18	119	137	50	50	50	T.C., L/S; first 50 stom./mat./age
35	9	83	92	47	48	50	T.C., L/S; first 50 stom./mat./age
36	5	39	44	43	44	44	T.C.
39	1	3	4	4	3	4	T.C.
41	0	1	1		1	1	T.C.
42	3	15	18	18	18	18	T.C.
43	2	20	22	22	22	22	T.C.
44	1	10	11		11	11	T.C.
45	6	31	37	37	36	37	T.C.
48	21	53	74	49	49	50	T.C., L/S; first 50 stom./mat./age
49	1	6	7	7	7	7	T.C.
50	24	64	88	50	49	50	T.C., L/S; first 50 stom./mat./age
51	9	56	65	64	65	65	T.C.
52	8	33	41	40		41	T.C.
53	1	7	8			8	T.C., L/S/stom.
54	2	18	20	20	17	20	T.C.
55	1	10	11	11	10	11	T.C.
56	5	52	57	57	57	57	T.C.
57	13	101	114	49		50	T.C.
58	30	53	83	83		83	T.C.
59	13	19	32	32		32	T.C.
61	10	53	63	63	56	63	T.C.
62	19	239	258	100		100	Random 20 tubs, L/S; first 100 stom./mat./age
63	58	199	257	101	97	101	Random 20 tubs, L/S; first 100 stom./mat./age
65	9	74	83	50		50	T.C., L/S; random first 50 stom./age
67	48	167	215	50	48	50	T.C., L/S; random first 50 stom./age
68	13	8	21	21	20	21	T.C.
69	43	957	1000	998	108	202	Random first 1000

Table 2 (cont'd)

Set no.	Length			Age	Mat.[1]	Stomach contents	Sampling remarks[2]
	Male	Female	Total				
70	2	7	9	9		9	T.C.
71	6	24	30	30		30	T.C.
72	15	100	115	52	52	52	T.C., L/S.; first 50 stom./mat./age.
73	28	93	121	50	50	50	T.C., L/S.; first 50 stom./mat./age.
74	15	45	60	60	58	60	T.C.
75	2	7	9	9	9	9	T.C.
77	1	11	12	12	12	12	T.C.
81	2	0	2	2	2	2	T.C.
Totals	1922	7215	9137	4632	1724	3006	

[1] From set #34 onward all female dogfish that were examined for stomach contents, maturity or spines were examined for numbers of large ovarian eggs, uterine eggs or yolk sac pups.

[2] Abbreviations in Sampling Remarks
T.C.-Total Catch Processed
L-Length
S-Sex
stom.-stomach contents
mat.-maturity
age-spines

Table 3. Catch summary by set, ARCTIC HARVESTER, August 1977.

Set no.	Gear[1]	Depth range (m)	Dogfish		Start time (PDT)
			Catch (kg)	CPUE (kg/h)	
1	FBT	29-45	0	Net off bottom?	0953
2	FBT	29-34	29	58	1005
3	FBT	27-31	1261	(2522)*	1240
4	FBT	22-29	850	1700	1400
5	FBT	22	1150	4600	1637
6	FBT	17-18	36	135	1814
7	FBT	17-18	3390	6780	1906
8	FBT	11-14	2	5	1915
9	FBT	16-18	3617	7234	1100
10	FBT	14-16	898	4898	1355
11	FBT	22-24	300	1200	1449
12	FBT	26-27	160	640	1552
13	FBT	25-27	0	-	1845
14	FBT	18-19	1997	7988	0823
15	FBT	23-24	2250	8438	0940
16	FBT	24-26	295	983	1035
17	FBT	29-30	635	2540	1210
18	FBT	32-33	40	160	1307
19	SBT	11-12.8	0	-	0900
20	SBT	16.5	0	-	0937
21	SBT	16.5	69	276	1056
22	SBT	18.3	288	1152	1227
23	SBT	19	10	150	1327
24	SBT	16-19	109	436	1350
25	SBT	14-16	31	124	1432
26	SBT	13-14	132	528	1546
27	SBT	11-12	144	576	1636

*assuming 30 min tow.

Table 3 (cont'd)

Set no.	Gear[1]	Depth range (m)	Dogfish		Start time (PDT)
			Catch (kg)	CPUE (kg/h)	
28	SBT	13-15	232	928	1805
29	SBT	8-9	35	140	0805
30	SBT	14-16	241	516	0856
31	SBT	15-16	32	128	1048
32	SBT	18	342	1368	1305
33	SBT	19-20	409	1636	1434
34	SBT	25-26	255	1020	1540
35	FBT	9-12	184	736	1747
36	FBT	11-13	107	428	1830
37	FBT	13-16	965	3860	0809
38	FBT	11-12	284	1002	0900
39	FBT	15-17	3100	12400	0957
40	FBT	20-22	1130	4520	1058
41	BT	27-31	742	(2968)	1544
42	BT	33-37	21	84	1850
43	BT	27-28	34	136	1827
44	FBT	17-18	2000	8000	0815
45	FBT	15-16	416	1664	0925
46	FBT	12-13	3605	14420	1013
47	FBT	10-11	1318	5272	1108
48	FBT	13-16	6800	19429	1308
49	FBT	19-20	515	2060	1420
50	FBT	22-24	350	1615	1559
51	FBT	13-16	272	(1088)*	1650
52	FBT	17	213	852	1833
53	BT	11-13	47	188	0751
54	BT	10-13	27	108	0818

*assuming 15 min tow.

Table 3 (cont'd)

Set no.	Gear[1]	Depth range (m)	Dogfish		Start time (PDT)
			Catch (kg)	CPUE (kg/h)	
55	BT	11	28	112	0913
56	BT	8-10	29	116	1033
57	BT	9-10	6	90	1111
58	BT	5-6	49	196	1135
59	BT	11-12	50	429	1247
60	BT	6-11	31	(124)*	1315
61	BT	7-11	93	372	1440
62	BT	11	136	544	1509

*assuming 15 min set.

Table 3 (cont'd)

Set no.	Gear[1]	Depth range (m)	Depth of scattering layer (m)	Dogfish		Start time (PDT)
				Weight (kg)	CPUE (kg/h)	
63	MWT	55-73	90-128	0	-	2145
64	MWT	18-27	164-250	0	-	0915
65	MWT	46-65	256+	0	-	1047
66	MWT	330-336	316-366	0	-	1255
67	FBT	370-377	-	0	-	1445
68	FBT	84-91	-	38	76	0815
69	FBT	181-190	100-165	17	34	1005
70	MWT	105-135	100-110?	0	-	1300
71	MWT	90-110	90-110	0	-	1425
72	MWT	9-13	115-130	0	-	1555
73	MWT	18-22	-	0	-	1925
74	MWT	70-95	70-90	0	-	0755
75	MWT	176-187	-	0	-	0908
76	FBT	176-179	73	0	-	1245
77	MWT	32-72	27-40	0	-	0900
78	MWT	55-64	55-70 90-115	0	-	1040
79	MWT	108-114	110-120	0	-	1150
80	FBT	139-148	90-110	49	98	1320
81	FBT	90-93	73-82	64	128	1730
82	FBT	79-84	9, 45-65	232	464	1942
83*	FBT	73	36-64	57	427	0800
84	MWT	10-11	55-90	0	-	1012
85	MWT	55-73	55-73	3	6	1150
86	MWT	131-137	55-90	2	4	1313
87	MWT	110-140	-	0	-	1750
88	MWT	53-55	-	0	-	1950
89	MWT	146-165	-	0	-	0840

*aborted - broken sweep lines.
[1]FBT-fish bottom trawl
SBT-shrimp bottom trawl-40' Marinovich Gulf coast
MWT-midwater trawl
BT- bottom trawl.

Table 4. Catch summary by set, ARCTIC HARVESTER, June 1978.

Set no.	Gear[1]	Mean depth (m)	Dogfish catch		Start Time (PDT)
			Catch (kg)	CPUE (kg/h)	
1	FBT	25	505	1010	0800
2	FBT	32	334	668	1224
3	FBT	24	460	1380	1430
4	FBT	25	486	972	1525
5	FBT	15	294	588	1802
6	FBT	19	8	16	0750
7	FBT	14	2000	12000	0913
8	FBT	17	5000	10000	1230
9	FBT	19	791	1582	1748
10	FBT	15	155	620	0750
11	FBT	24	4000	8000	0850
12	FBT	20	2000	8000	1130
13	FBT	20	623	2492	1315
14	FBT	23	455	1820	1405
15	FBT	26	794	2382	1525
16	FBT	31	140	560	1635
17	SBT	16.5	5	20	0822
18	SBT	19	64	256	0910
19	SBT	18	100	400	1010
20	SBT	17.5	102	408	1550
21	SBT	16.5	29	116	1635
22	SBT	12	605	2420	1805
23	SBT	13	901	3604	1840
24	SBT	15	230	920	1913
25	SBT	12	864	3456	0805
26	SBT	14	805	3220	0845
27	SBT	13	52	390	1045
28	SBT	16	18	72	1135
29	SBT	17	116	464	1325
30	SBT	18	189	756	1410
31	SBT	21	104	416	1510
32	SBT	22	297	1188	1545
33	SBT	10	100	400	0755
34	SBT	18	343	1372	0807
35	SBT	17	224	896	0840
36	SBT	19	100	400	0920
37	SBT	14	0	-	1020
38	SBT	13	0	-	1050
39	SBT	12	10	40	1125
40	SBT	17	0	-	1255
41	SBT	16	2	15	1400
42	SBT	12	57	228	1440
43	SBT	14	67	268	1550
44	SBT	10	34	136	1815
45	SBT	13	84	168	1845

Table 4 (cont'd)

Set no.	Gear[1]	Mean depth (m)	Dogfish catch		Start Time (PDT)
			Catch (kg)	CPUE (kg/h)	
46	SBT	12	0	-	0820
47	SBT	15	0	-	0910
48	SBT	20	178	712	1005
49	SBT	26.5	21	84	1115
50	SBT	26.5	161	644	1245
51	SBT	24	131	524	1340
52	SBT	25	61	244	1415
53	SBT	22	16	32	0103
54	SBT	18	59	236	1025
55	SBT	17	32	128	1100
56	SBT	18	141	282	1230
57	SBT	16	276	552	1330
58	SBT	35	155	310	1515
59	SBT	36	57	114	1600
60	SBT	30	0	-	1805
61	FBT	11	231	924	0750
62	FBT	10	2120	4240	0830
63	FBT	11	1362	4540	0950
64	FBT	87	0	-	0910
65	FBT	20	225	450	1225
66	FBT	18	0	-	1400
67	FBT	18	438	876	1515
68	FBT	25	40	160	1745
69	FBT	12	8000	10667	0815
70	FBT	21	28	112	1615
71	FBT	21	91	182	1740
72	FBT	16	290	580	0810
73	FBT	12	304	521	0915
74	FBT	18	160	320	1035
75	FBT	20	15	30	1235
76	FBT	29	0	-	1400
77	FBT	92	39	26	0915
78	MWT	98(86)	0	-	1340
79	MWT	95(39)	0	-	1540
80	MWT	96(13)	0	-	1340
81	MWT	165(73)	1		0830
82	MWT	300(146)	0	-	1500
83	MWT	245(41)	0	-	0750
84	MWT	210(22)	0	-	1330
85	MWT	250(18)	0	-	1030
86	MWT	225(46)	0	-	1235

[1]FBT-fish bottom trawl

SBT-shrimp bottom trawl

MWT-midwater trawl

Table 5a. Summary of male dogfish maturity conditions by length interval, ARCTIC HARVESTER, August 1977.

Total length (cm)	Maturity condition			
	I_1	I_2	R	Total
58	-	1	-	1
59	-	0	-	0
60	-	0	-	0
61	-	0	-	0
62	-	0	-	0
63	1	1	-	2
64	1	2	-	3
65	1	0	-	1
66	1	3	-	4
67	4	4	-	8
68	3	3	-	6
69	2	3	-	5
70	2	5	3	10
71	0	2	4	6
72	2	2	2	6
73	1	4	7	12
74	-	1	9	10
75	-	1	8	9
76	-	1	7	8
77	-	2	12	14
78	-	3	18	21
79	-	1	20	21
80	-	0	25	25
81	-	1	13	14
82	-	2	22	24
83	-	2	10	12
84	-	-	12	12
85	-	-	10	10
86	-	-	9	9
87	-	-	5	5
88	-	-	2	2
89	-	-	3	3
90	-	-	1	1
91	-	-	0	0
92	-	-	1	1
93	-	-	1	1
Total	18	44	204	266

Table 5b. Summary of female dogfish maturity conditions by length interval, ARCTIC HARVESTER, August 1977.

Total length (cm)	Maturity condition									
	I D 1 1	I D 1 2	I D 2 1	I D 2 2	I D 2 3	I D 2 8	R D 1 1	R D 1 2	R D 1 3	R D 1 4
53	-	-	1	-	-	-	-	-	-	-
54	-	-	1	-	-	-	-	-	-	-
55	-	-	0	-	-	-	-	-	-	-
56	-	-	0	-	-	-	-	-	-	-
57	1	-	0	-	-	-	-	-	-	-
58	0	-	1	-	-	-	-	-	-	-
59	0	-	0	-	-	-	-	-	-	-
60	0	-	1	-	-	-	-	-	-	-
61	0	-	2	-	-	-	-	-	-	-
62	0	-	1	-	-	-	-	-	-	-
63	0	-	4	-	-	-	-	-	-	-
64	0	-	2	-	-	-	-	-	-	-
65	0	-	2	-	-	-	-	-	-	-
66	0	-	4	-	-	-	-	-	-	-
67	0	1	2	-	-	-	-	-	-	-
68	0	-	6	1	-	-	-	-	-	-
69	0	-	7	0	-	-	-	-	-	-
70	0	-	4	1	-	-	-	-	-	-
71	0	-	9	0	-	-	2	-	-	-
72	2	-	10	1	-	-	1	-	-	-
73	0	-	6	0	-	-	1	1	-	-
74	2	-	13	0	-	-	0	0	-	-
75	0	-	7	1	-	-	0	0	-	-
76	0	-	10	0	-	-	0	2	-	-
77	0	-	15	1	-	-	0	1	-	-
78	0	-	12	3	-	-	0	3	-	-
79	0	-	7	3	-	-	3	2	1	-
80	1	-	9	0	-	-	3	3	-	-
81	1	-	6	3	-	-	0	7	-	-
82	1	-	5	3	-	-	1	11	-	-
83	0	-	8	0	-	-	3	10	1	-
84	1	-	2	3	-	-	2	10	0	-
85	1	-	4	2	-	-	1	10	1	-
86	0	-	4	3	-	-	0	14	1	-
87	0	-	3	1	-	-	2	7	1	-
88	1	-	2	1	1	-	0	8	0	1
89	1	-	0	2	-	-	0	9	0	0
90	1	-	2	1	-	-	1	9	0	0
91	-	-	1	0	-	-	0	9	3	0
92	-	-	-	1	-	-	1	9	1	0
93	-	-	-	3	-	-	-	7	3	1
94	-	-	-	1	-	-	-	6	1	-
95	-	-	-	1	-	-	-	1	2	-
96	-	-	-	-	-	-	-	-	-	-

Table 5b (cont'd)

Total length (cm)	Maturity condition									
	I D 1 1	I D 1 2	I D 2 1	I D 2 2	I D 2 3	I D 2 8	R D 1 1	R D 1 2	R D 1 3	R D 1 4
97	-	-	-	-	-	-	-	2	3	0
98	-	-	-	-	-	-	-	1	5	0
99	-	-	-	-	-	-	-	4	0	1
100	-	-	-	-	-	-	-	1	2	1
101	-	-	-	-	-	-	-	0	0	-
102	-	-	-	-	-	-	-	1	0	-
103	-	-	-	-	-	-	-	-	1	-
104	-	-	-	-	-	-	-	-	1	-
105	-	-	-	-	-	-	-	-	0	-
106	-	-	-	-	-	-	-	-	0	-
107	-	-	-	-	-	-	-	-	1	-
108	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-
Total	13	1	173	36	1	1	21	150	29	4

Table 5b (cont'd)

Total length (cm)	Maturity condition									
	RD 15	RD 16	RD 18	RD 21	RD 22	RD 23	RD 24	RD 25	RD 26	RD 28
53	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	1	-	-	-	-	-
66	-	-	-	-	0	-	-	-	-	-
67	-	-	-	-	0	-	-	-	-	-
68	-	-	-	1	0	-	-	-	-	-
69	-	-	-	0	0	-	-	-	-	-
70	-	-	-	1	0	-	-	-	-	-
71	-	-	-	0	0	-	-	-	-	-
72	-	-	-	1	0	-	-	-	-	-
73	-	-	-	0	0	-	-	-	-	-
74	-	-	-	0	0	-	-	-	-	-
75	-	-	-	1	0	-	-	-	-	-
76	-	-	-	0	0	-	-	-	-	-
77	-	-	-	0	0	-	-	-	-	-
78	-	-	-	0	0	-	-	-	-	-
79	-	-	-	0	0	-	-	-	-	-
80	-	-	-	0	0	-	-	-	-	-
81	-	-	-	2	0	-	-	-	-	-
82	-	-	-	1	0	1	-	-	-	-
83	-	-	-	0	0	1	-	-	-	-
84	-	-	-	1	0	0	-	-	-	-
85	-	-	-	1	0	0	-	-	1	-
86	-	1	-	1	0	1	-	-	0	-
87	-	0	-	-	0	0	1	-	0	-
88	-	0	-	-	1	3	0	-	1	-
89	-	0	-	-	1	4	0	-	0	-
90	-	0	-	-	0	5	3	1	1	-
91	-	0	-	-	0	4	4	0	3	-
92	-	1	1	-	2	7	1	0	0	-
93	1	0	-	-	0	6	1	0	6	-
94	-	2	-	-	0	5	0	0	3	-
95	-	0	-	-	0	5	0	2	2	-
96	-	0	-	-	0	11	4	0	3	1

Table 5b (cont'd)

Total length (cm)	Maturity condition									
	R D 1 5	R D 1 6	R D 1 8	R D 2 1	R D 2 2	R D 2 3	R D 2 4	R D 2 5	R D 2 6	R D 2 8
97	-	0	-	-	0	9	1	0	5	0
98	-	1	-	-	1	11	1	1	6	0
99	-	1	-	-	0	6	5	0	1	0
100	-	1	-	-	1	8	2	0	5	0
101	-	0	-	-	-	2	1	0	2	0
102	-	0	-	-	-	6	3	0	5	0
103	-	0	-	-	-	8	0	0	5	0
104	-	0	-	-	-	4	4	0	5	0
105	-	0	-	-	-	0	3	0	3	0
106	-	0	-	-	-	4	1	0	5	0
107	-	0	-	-	-	-	4	0	2	0
108	-	0	-	-	-	-	0	0	2	0
109	-	0	-	-	-	-	2	2	1	0
110	-	0	-	-	-	-	-	-	3	0
111	-	0	-	-	-	-	-	-	2	0
112	-	0	-	-	-	-	-	-	0	0
113	-	0	-	-	-	-	-	-	0	1
114	-	0	-	-	-	-	-	-	0	-
115	-	0	-	-	-	-	-	-	1	-
116	-	0	-	-	-	-	-	-	-	-
117	-	0	-	-	-	-	-	-	-	-
118	-	0	-	-	-	-	-	-	-	-
119	-	0	-	-	-	-	-	-	-	-
120	-	0	-	-	-	-	-	-	-	-
121	-	1	-	-	-	-	-	-	-	-
Total	1	8	1	10	7	111	41	6	73	2

Table 5b (cont'd)

Total length (cm)	Maturity condition								Total
	R D 3 1	R D 3 2	R D 3 3	R D 3 4	R D 3 5	R D 3 6	R D 3 7	R D 3 8	
53	-	-	-	-	-	-	-	-	1
54	-	-	-	-	-	-	-	-	1
55	-	-	-	-	-	-	-	-	
56	-	-	-	-	-	-	-	-	
57	-	-	-	-	-	-	-	-	1
58	-	-	-	-	-	-	-	-	1
59	-	-	-	-	-	-	-	-	
60	-	-	-	-	-	-	-	-	1
61	-	-	-	-	-	-	-	-	2
62	-	-	-	-	-	-	-	-	1
63	-	-	-	-	-	-	-	-	4
64	-	-	-	-	-	-	-	-	2
65	1	-	-	-	-	-	-	-	4
66	0	-	-	-	-	-	-	-	4
67	0	-	-	-	-	-	-	-	3
68	0	-	-	-	-	-	-	-	8
69	0	-	-	-	-	-	-	-	7
70	0	-	-	-	-	-	-	-	6
71	0	-	-	-	-	-	-	-	11
72	0	-	-	-	-	-	-	-	15
73	0	-	-	-	-	-	-	-	8
74	1	-	-	-	-	-	-	-	16
75	1	-	-	-	-	-	-	-	10
76	1	-	-	-	-	-	-	-	13
77	0	-	-	-	-	-	-	-	17
78	0	-	-	-	-	-	-	-	18
79	0	-	-	-	-	-	-	-	16
80	0	1	-	-	-	-	-	-	17
81	1	0	-	-	-	-	-	-	20
82	0	0	-	-	-	1	-	-	24
83	0	0	-	-	-	0	-	-	23
84	0	0	-	1	-	1	-	-	21
85	0	0	-	0	-	0	-	-	21
86	0	0	-	0	-	0	-	-	25
87	0	0	-	0	-	0	-	1	16
88	0	0	1	1	-	3	-	0	24
89	0	0	0	2	-	1	-	0	20
90	0	0	1	0	-	4	-	1	30
91	0	0	0	0	-	0	-	0	24
92	0	1	0	0	-	0	-	0	25
93	0	-	0	2	-	8	1	1	40
94	0	-	0	2	-	2	-	0	22
95	0	-	0	3	-	1	-	1	18
96	0	-	0	0	-	3	-	2	28
97	0	-	0	0	-	8	-	1	29

Table 5b (cont'd)

Total length (cm)	Maturity condition								
	R D 3 1	R D 3 2	R D 3 3	R D 3 4	R D 3 5	R D 3 6	R D 3 7	R D 3 8	Total
98	0	-	2	3	1	6	-	1	40
99	0	-	0	2	0	8	-	3	31
100	0	-	1	5	0	4	-	3	34
101	1	-	1	1	0	5	-	4	17
102	-	-	1	3	0	6	-	3	28
103	-	-	-	4	0	7	-	3	28
104	-	-	-	3	1	6	-	3	27
105	-	-	-	0	-	5	-	2	13
106	-	-	-	4	-	2	-	3	19
107	-	-	-	1	-	4	-	2	14
108	-	-	-	1	-	4	-	0	7
109	-	-	-	1	-	3	-	1	10
110	-	-	-	0	-	2	-	0	5
111	-	-	-	1	-	3	-	0	6
112	-	-	-	1	-	0	-	2	3
113	-	-	-	1	-	0	-	0	2
114	-	-	-	-	-	0	-	0	0
115	-	-	-	-	-	1	-	1	3
116	-	-	-	-	-	1	-	-	1
117	-	-	-	-	-	-	-	-	0
118	-	-	-	-	-	-	-	-	0
119	-	-	-	-	-	-	-	-	0
120	-	-	-	-	-	-	-	-	0
121	-	-	-	-	-	-	-	-	1
Total	6	2	7	42	2	99	1	38	886

Table 6a. Summary of male dogfish maturity conditions, ARCTIC HARVESTER, June 1978.

Total length (cm)	Maturity condition			
	I_1	I_2	R	Total
50	1	-	-	1
51	0	-	-	0
52	0	-	-	0
53	0	-	-	0
54	0	-	1	1
55	0	-	0	0
56	1	-	1	2
57	0	-	0	0
58	0	-	0	0
59	1	1	0	2
60	0	0	1	1
61	2	1	1	4
62	4	2	2	8
63	3	0	0	3
64	1	1	1	3
65	3	3	1	7
66	4	4	1	9
67	2	7	1	10
68	0	11	2	13
69	3	5	2	10
70	1	15	2	18
71	-	3	5	8
72	-	10	5	15
73	-	7	11	18
74	-	4	8	12
75	-	2	8	10
76	-	3	9	12
77	-	3	12	15
78	-	2	17	19
79	-	1	10	11
80	-	1	14	15
81	-	1	18	19
82	-	0	22	22
83	-	0	13	13
84	-	0	16	16
85	-	0	11	11
86	-	0	8	8
87	-	0	11	11
88	-	1	8	9
89	-	-	3	3
90	-	-	9	9
91	-	-	2	2
92	-	-	2	2
93	-	-	3	3
94	-	-	0	0
95	-	-	1	1
Total	26	88	242	356

Table 6b. Summary of female dogfish maturity conditions by length interval, ARCTIC HARVESTER, June 1978.

Total length (cm)	Maturity condition								
	I_2D_1	R_1D_2	R_2D_3	R_3D_3	R_3D_4	R_3D_8	$R_{1-2}D_5$	R_3D_6	Total
43	1	-	-	-	-	-	-	-	1
44	0	-	-	-	-	-	-	-	0
45	0	-	-	-	-	-	-	-	0
46	0	-	-	-	-	-	-	-	0
47	0	-	-	-	-	-	-	-	0
48	0	-	-	-	-	-	-	-	0
49	0	-	-	-	-	-	-	-	0
50	1	-	-	-	-	-	-	-	1
51	0	-	-	-	-	-	-	-	0
52	1	-	-	-	-	-	-	-	1
53	0	1	-	-	-	-	-	-	1
54	1	-	-	-	-	-	-	-	1
55	0	-	-	-	-	-	-	-	0
56	2	-	-	-	-	-	-	-	2
57	3	-	-	-	-	-	-	-	3
58	3	-	-	-	-	-	-	-	3
59	3	-	-	-	-	-	-	-	3
60	4	-	-	-	-	-	-	-	4
61	5	3	-	-	-	-	-	-	9
62	3	1	-	-	-	-	-	-	4
63	8	1	-	-	-	-	-	-	9
64	8	1	-	-	-	-	-	-	9

Table 6b (cont'd)

Total length (cm)	Maturity condition								
	I_2D_1	R_1D_2	R_2D_3	R_3D_3	R_3D_4	R_3D_8	$R_{1-2}D_5$	R_3D_6	Total
65	11	1	-	-	-	-	-	-	12
66	16	3	-	-	-	-	-	-	19
67	19	6	-	-	-	-	-	-	25
68	17	4	-	-	-	-	-	-	21
69	9	7	-	-	-	-	-	-	17
70	25	7	-	-	-	-	-	-	32
71	28	12	-	-	-	-	-	-	40
72	19	7	-	-	-	-	-	-	26
73	20	11	-	-	-	-	-	-	31
74	11	21	-	-	-	-	-	-	32
75	13	16	-	-	-	-	-	-	29
76	21	16	-	-	-	-	-	-	37
77	27	17	-	-	-	-	-	-	44
78	12	25	1	-	-	-	-	-	38
79	15	21	0	-	-	-	-	-	36
80	7	37	1	-	-	-	-	-	45
81	5	30	0	-	-	-	-	-	35
82	8	30	0	-	-	-	-	1	39
83	10	26	4	-	-	-	-	0	40
84	7	28	4	-	-	-	-	0	39
85	9	29	2	1	1	1	1	1	45
86	7	24	3	0	1	3	0	1	39
87	1	33	3	0	0	3	0	1	41
88	3	21	6	0	0	2	1	1	34
89	3	23	11	1	0	4	0	0	42

Table 6b (cont'd)

Total length (cm)	Maturity condition								
	I_2D_1	R_1D_2	R_2D_3	R_3D_3	R_3D_4	R_3D_8	$R_{1-2}D_5$	R_3D_6	Total
90	2	22	15	1		3			43
91	-	22	12	-	1	9	1		45
92	1	12	17	1	2	6	2	2	43
93	-	13	14	-	1	13	5	-	46
94	1	15	8	1	1	12	3	2	43
95	-	11	10	-	1	10	2	1	35
96	-	6	10	-	-	14	1	3	34
97	-	5	9	-	-	12	4	-	30
98	1	3	11	-	3	10	3	1	32
99	-	2	3	-	1	9	3	1	19
100	-	2	4	2	-	4	6	2	20
101	-	1	4	1	3	8	4	1	21
102	-	-	4	1	1	4	1	1	12
103	-	1	1	-	-	5	1	1	9
104	-	-	-	-	1	4	-	-	5
105	-	-	-	-	-	2	1	1	4
106	-	-	-	-	-	2	1	5	8
107	-	-	2	-	-	-	1	4	7
108	-	-	-	-	-	-	1	2	3
109	-	2	-	-	-	-	1	-	3
110	-	-	-	-	-	-	-	1	1
111	-	-	-	1	-	-	-	2	3
112	-	-	-	1	-	-	-	2	3
113	-	-	-	-	-	-	-	1	1
114	-	-	-	-	-	-	-	2	2

Table 6b (cont'd)

Total length (cm)	Maturity condition								
	I_2D_1	R_1D_2	R_2D_3	R_3D_3	R_3D_4	R_3D_8	$R_{1-2}D_5$	R_3D_6	Total
115	-	-	-	-	0	0	-	-	0
116	-	-	-	-	0	0	-	-	0
117	-	-	-	-	0	0	-	-	0
118	-	-	-	-	0	1	-	-	1
119	-	-	-	-	1	-	-	-	1
Total	371	579	159	9	19	141	43	40	1361

Table 7. Dogfish gonad development and maturity stages.

Females

Stage	Ovaries	Stage	Uterii
I_1	Ova small - 0-5 mm diameter; white firm ovary <1/4 length of body cavity.	D_1	Thin, no thickening.
		D_2	Thin, <5 mm thickened section, <1/4 length of body cavity.
R_1	Ova - 5-10 mm, white firm, ovary flaccid, flocculent external surface.	D_3	About 5 mm thickened section; <1/4 length of body cavity.
R_2	Ova, flaccid yellow, flaccid diameter 10-30 mm.	D_4	Thickened section at least 10 mm or wider, flaccid; >1/3 length of body cavity.
R_3	Ova at least two sizes white firm <20 mm and yellow firm >20 mm; ovary flaccid 1/4 to 1/3 length of body cavity.	D_5	Uterine eggs.
		D_6	Yolk sac pups.
		D_7	Term pups (yolk sac absorbed).
		D_8	Flaccid.
Resting	Ova small white firm. <10 mm, ovary flaccid fibrous exterior granular surface.		

Males

I_1	Claspers do not extend past tips of anal fins; testes flat creamy.
I_2	Claspers extend past tips of anal fins; not stiff; testes, even creamy color, not brown.
R	Claspers extend past tips of anal fins; stiff; testes, creamy-brown, bloodshot, very firm.

Table 8. Mean lengths of female dogfish by maturity condition and fecundity, ARCTIC HARVESTER, June 1978.

No. of eggs or pups	Large ovarian egg and flaccid oviducts (R_3D_8)			Encapsuled eggs or very small yolk sac pups (R_1-$_2D_5$)			[1]Yolk sac pups (D_6)			Large ovarian eggs (R_3)		
	Mean length of female	No.	SD	Mean length of female	No.	SD	Mean length of female	No.	SD	Mean length of female	No.	SD
3	94.7	3	4.62				90.	1				
4	88.7	4	3.77	110	1	-	93.0	2	1.0			
5	92.7	25	3.54	83	1	-	99.6	5	5.12	100.5	2	4.95
6	94.6	57	5.31	94.0	3	9.64	94.4	5	4.72	95.8	6	6.00
7	95.6	59	3.61	99.1	7	4.74	103.8	8	3.62	100.3	8	6.67
8	96.9	39	3.86	99.0	7	3.95	105.2	10	5.12	101.4	9	8.38
9	98.0	21	3.33	98.5	2	3.54	103.8	4	9.11	103.0	7	4.62
10	102.2	6	2.32	106.7	3	1.15	104.6	8	4.00	106	3	-
11	104.1	7	4.06	100.5	2	0.71	105.0	1		110.0	3	1.00
12	102.5	2	0.71	-	-	-	112.5	2	3.54	100.5	2	2.12
13	-	-	-	-	-	-	115.0	2	2.82	108.0	3	5.20
14	-	-	-	-	-	-	-	-	-	110.0	3	4.58
15	111	1	-	-	-	-	-	-	-	117	1	-
16	-	-	-	-	-	-	-	-	-	108	1	-
17	-	-	-	-	-	-	-	-	-	-		
18	-	-	-	-	-	-	-	-	-	-		
19	-	-	-	-	-	-						
20	-	-	-	-	-	-						
21	-	-	-	-	-	-						
22	-	-	-	117.0	1	-						
Total	95.9	224	4.87	100.0	27	7.00	102.9	48	6.92	102.9	48	6.92
	mean nos of eggs/		7.06	mean nos of eggs/		8.30	mean nos of pups/		7.90	mean nos of eggs/		9.0
		SD	1.70		SD	3.22		SD	2.34		SD	2.7

[1]only females where ovaries and oviducts are complete and undamaged.

Table 9. Dogfish stomach contents by species group and by set, ARCTIC HARVESTER, August 1977

Fish species	Set										
	2	3	4	5	6	7	8	9	10	11	12
	Volume of Contents (cc)										
Unid. fish remains	5.8	44.9	22.4	5	-	5	1.5	150.3	211.1	5	22
Young-of-year unid. fish	2	-	-	-	-	-	-	-	-	-	-
Unid. flatfish	-	24	75.3	-	24	88	-	-	-	1.25	-
Rock sole	-	4	-	5.8	0.8	0.5	-	-	6.6	1	2.5
Young-of-year rock sole	2.75	136.75	120	-	-	-	-	-	-	15	-
Flathead sole	-	39	-	-	-	-	-	-	-	-	-
Turbot	-	-	-	-	-	-	-	-	-	-	-
Sand sole	-	-	2	1	-	-	-	-	-	-	-
Sandlance	1.2	194.4	-	-	-	77.6	-	221	461.8	5	14
Herring	3.5	-	-	9.5	-	-	-	-	-	60	-
Young-of-year pollock	7.75	-	3.5	-	-	-	-	-	-	1.25	33
Pollock	-	-	-	-	-	-	-	-	-	-	-
Dogfish	-	-	-	-	-	-	-	-	-	-	-
Ratfish	-	-	-	-	-	-	-	-	-	-	-
Sandfish	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	-	-	-	-	-	-
Sculpin	-	-	-	-	-	-	-	-	-	-	-
Smelt	-	-	-	-	-	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-	-
Eelpout	-	9.6	-	-	-	-	-	-	-	-	-
Gunnel	-	6.4	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	-
Mammal flesh	-	-	-	-	-	-	-	-	-	-	-

Table 9 (cont'd)

Fish species	Set											
	14	15	16	17	18	21	22	23	24	25	26	27
	Volume of Contents (cc)											
Unid. fish remains	21	104	261	33.3	2	-	79	7.5	185	0.5	35.8	49.35
Young-of-year unid. fish	-	-	-	-	-	-	-	-	-	-	-	-
Unid. flatfish	-	-	59	12.5	3	-	3	-	-	-	-	-
Young-of-year flatfish	-	-	-	-	-	-	-	-	-	-	-	-
Rock sole	-	-	-	1	-	-	-	-	-	1	-	-
Young-of-year rock sole	-	-	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-	-	-
Turbot	-	-	-	-	-	-	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-	-	-	-	-	-	-
Sandlance	6.4	22	283	39.5	45	-	34	-	51	2.4	32.45	11.2
Herring	-	-	-	-	-	-	-	-	-	-	-	-
Young-of-year pollock	7.2	84	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	10.5	2.5	-	-	-	-	-	-	-
Dogfish	-	-	-	-	-	-	5	-	-	-	-	-
Ratfish	-	-	-	-	-	-	-	-	22.5	-	-	-
Sandfish	-	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	-	-	-	-	-	12	-
Sculpin	-	-	-	-	-	-	-	-	-	-	-	-
Smelt	-	-	-	-	-	-	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-	-	-
Eelpout	-	-	-	-	-	-	-	-	-	-	-	-
Gunnel	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	-	-
Mammal flesh	-	-	-	-	-	-	-	-	-	-	-	-

Table 9 (cont'd)

Fish species	Set										
	28	29	30	31	32	33	34	35	36	37	38
	Volume of Contents (cc)										
Unid. fish remains	341.1	360	901.4	2.4	11.2	77.7	22	76	6	726.6	48
Young-of-year unid. fish	-	-	-	-	-	-	-	-	-	-	-
Unid. flatfish	2	-	-	-	-	-	10	-	-	-	-
Young-of-year flatfish	-	-	-	-	-	-	-	-	-	-	-
Rock sole	0.8	-	15	-	-	5	-	0.5	6.2	0.9	-
Young-of-year rock sole	-	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-	-
Turbot	-	-	-	-	-	-	-	-	-	-	-
Sand sole	-	-	-	-	-	26	-	-	75	7.6	-
Sandlance	112	-	40.5	-	110.6	125	208.5	34.4	22.75	176	11.
Herring	-	-	-	-	40	-	-	26	-	-	-
Young-of-year pollock	-	-	-	-	-	-	3	-	-	2	-
Pollock	-	-	-	-	-	13.2	-	-	-	-	-
Dogfish	-	-	-	-	-	-	-	-	80	30	-
Ratfish	-	-	-	-	-	-	-	-	-	-	-
Sandfish	-	-	153.7	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	-	-	-	-	-	-
Sculpin	-	-	-	-	-	-	-	-	-	-	-
Smelt	-	-	-	-	-	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-	-
Eelpout	-	-	-	-	-	-	-	-	-	-	-
Gunnel	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	250	-
Mammal flesh	-	-	-	-	-	-	-	-	-	-	-

Table 9 (cont'd)

Fish species	Set										
	39	40	41	42	43	44	45	46	47	48	49
	Volume of Contents (cc)										
Unid. fish remains	61.2	28.6	38.7	-	-	19.5	268	83.1	33	94.2	27.5
Young-of-year unid. fish	-	-	-	-	-	-	-	-	-	-	-
Unid. flatfish	-	-	5.6	-	-	-	-	-	-	-	-
Young-of-year flatfish	3.95	-	-	-	3.1	-	-	0.8	1	1.7	-
Rock sole	-	-	-	-	-	-	-	-	-	-	-
Young-of-year rock sole	-	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-	-
Turbot	-	-	-	-	-	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-	-	-	-	-	-
Sandlance	10.4	128	10.4	-	144.8	2	257	485	436.5	549.1	1
Herring	-	-	-	-	-	-	-	-	-	-	4
Young-of-year pollock	-	-	40.8	21.1	6.8	-	-	3	1	-	-
Pollock	5	-	-	-	-	-	-	-	-	-	-
Dogfish	-	-	-	-	-	-	-	-	636	-	-
Ratfish	-	-	-	-	-	-	-	-	-	-	-
Sandfish	-	-	-	-	21	-	-	-	-	5	-
Salmon	-	-	-	-	-	-	-	-	125	-	-
Sculpin	-	-	-	4	-	-	-	-	-	-	-
Smelt	-	-	-	-	-	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-	-
Eelpout	-	-	-	-	-	-	-	-	-	-	-
Gunnel	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	150
Mammal flesh	-	-	-	-	-	-	-	-	-	-	

Table 9 (cont'd)

Fish species	Set										
	51	52	53	54	55	56	57	58	59	60	61
	Volume of Contents (cc)										
Unid. fish remains	82.1	339	13.15	11	1.2	5.6	-	-	-	-	-
Young-of-year unid. fish	-	-	-	-	-	-	-	-	-	-	-
Unid. flatfish	-	10.4	-	-	-	-	-	-	16.5	-	-
									-	-	-
Young-of-year flatfish	8.4	-	1.5	-	-	4.6	-	2.5	20	2.25	1
Rock sole	-	-	-	-	-	-	-	-	-	-	-
Young-of-year rock sole	-	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-	-
Turbot	-	-	-	-	-	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-	-	-	-	-	-
Sandlance	488.2	554	-	-	-	-	-	4	104.75	12	40.3
Herring	-	-	-	-	-	-	-	-	-	-	46
Young-of-year pollock	-	-	-	-	-	-	-	4.5	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Dogfish	219	-	-	-	50	3	-	-	5	-	-
Ratfish	-	-	-	-	-	-	-	-	-	-	-
Sandfish	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	120	-	-	-	-	-	-	-	-	-
Sculpin	-	-	-	-	-	-	-	-	-	-	-
Smelt	-	-	2.5	-	-	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-	-
Eelpout	-	-	-	-	-	-	-	-	-	-	-
Gunnel	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	-
Mammal flesh	-	-	-	-	-	-	-	-	-	-	-

Table 9 (cont'd)

Fish species	Set									No. Sets	Total Volume
	62	68	69	80	81	82	83	85	86		
	Volume of Contents (cc)										
Unid. fish remains	4.2	69.8	30	11	798.7	79.3	74.1	150.5	87.5	55	5632.15
Young-of-year unid. fish	-	-	-	-	-	-	-	-	-	1	2
Unid. flatfish	-	-	-	-	-	-	-	-	-	14	334.55
Young-of-year flatfish	0.5	-	-	-	-	-	-	-	-	28	102.9
Rock sole	-	-	-	-	-	-	-	-	-	3	271.75
Young-of-year rock sole	-	-	-	-	-	-	-	-	-	2	41.75
Flathead sole	-	-	-	-	25	-	-	-	-	1	25
Turbot	-	-	-	-	760	-	-	-	-	1	760
Sand sole	-	-	-	-	-	-	-	-	-	5	111.6
Sandlance	60.6	-	-	-	1	-	-	-	-	44	5632.15
Herring	-	80	-	-	-	32	-	150	-	10	451
Young-of-year pollock	-	-	-	10	-	-	-	-	-	15	228.9
Pollock	-	-	-	-	400	-	-	-	-	5	431.2
Dogfish	-	-	-	-	-	-	-	-	-	8	1028
Ratfish	-	-	-	90	-	-	-	-	-	2	112.5
Sandfish	-	-	-	-	-	-	-	-	-	3	179.7
Salmon	-	-	-	-	-	-	-	-	87.5	4	344.5
Sculpin	-	-	-	-	-	-	-	-	-	1	4
Smelt	-	-	-	-	-	-	-	-	-	1	2.5
Eulachon	-	-	-	275	-	-	-	-	-	1	275
Eelpout	-	-	-	-	-	-	-	-	-	1	9.6
Gunnel	-	-	-	-	-	-	-	-	-	1	6.4
Rockfish	-	-	-	-	-	-	-	-	-	1	250
Mammal flesh	-	-	-	-	-	-	-	-	-	1	150

Table 9 (cont'd)

Item	Set										
	2	3	4	5	6	7	8	9	10	11	12
	Volume of Contents (cc)										
Crab											
Unid. crab	2	3						2	1		24
Cancer spp.									9.25		
branneri	4	13	8	5	1	2				1	1.2
gracilis	6	12	16.4	3	0.8	9.8			4	8.9	2
magister										2.5	6
productus			4					5.2	12.5		
Hermit crab	59.4	124.4	71.6	17.15	0.7			7		38	57.9
Spider crab	9	3									11
Shrimp											
Unid. shrimp				0.5							3.5
Crangon	15.1	30.5	1.7	21.3	0.7	10.1		5.8	6.7	9.5	110.4
Coonstripe											3
Ghost shrimp											2
Molluscs											
Cockle		29	42.6	233	4	121		189.5	17.4	103.5	50
Unid. clam		11.5		8			35	17.8	1	1	81.5
Horse clam											
Razor clam	35		2	10	5.6	30		18	72	106.6	
Moon snail		1	2.1								
Rock drill											
Unid. barnacle											
Squid	0.4	13.5									
Octopus											3

Table 9 (cont'd)

Item	Set										
	14	15	16	17	18	21	22	23	24	25	26
	Volume of Contents (cc)										
Crab	-	-	-	1	-	-	1.5	-	-	-	-
Unid. crab	-	-	-	-	-	-	-	-	-	-	-
Cancer spp.	-	31.5	15	1.8	-	3.6	8	-	-	-	-
branneri	10.8	10.5	45	29	-	3.5	120	-	11.4	9.6	54
gracilis	-	-	-	-	-	-	-	-	-	-	-
magister	21.8	-	61	-	-	46.8	-	-	12.8	-	-
productus	20	52.1	36	38.4	108	-	19	-	2.5	-	-
Hermit crab	2	-	10	39.5	8	-	-	-	3	-	-
Spider crab											
Shrimp	6.1	6	13	-	-	-	-	-	-	-	2.5
Unid. shrimp	7	19	13	49.7	34.9	1	33.4	-	3	0.2	3.4
Crangon	2	-	-	-	-	-	-	-	-	-	-
Coonstripe	-	-	-	-	-	-	-	-	-	-	-
Ghost shrimp											
Molluscs	14	-	29.6	-	-	18	17	-	8	42	39.9
Cockle	2	12.5	25	35	9	1	3	-	12.6	-	4.5
Unid. clam	-	-	-	-	-	-	-	-	-	-	-
Horse clam	2	-	-	-	-	31.5	15	-	5.6	7.6	77.3
Razor clam											
Moon snail	17.2	-	40	-	-	-	80	-	18	-	-
Rock drill	-	-	-	-	-	-	-	-	-	-	-
Unid. barnacle	-	-	-	-	0.5	-	-	-	-	-	-
Squid	-	-	-	-	-	-	-	-	-	-	-
Octopus	5	947	-	-	-	-	-	-	-	-	-

Table 9 (cont'd)

Item	Set									
	27	28	29	30	31	32	33	34	35	36
	Volume of Contents (cc)									
Crab										
Unid. crab	6.8	0.5	0.5	2.7	2.4	4	1	7.5	-	-
Cancer spp.										
branneri	7	4.5	15	14	-	-	-	6	-	-
gracilis	6.8	52.75	-	18	4.5	26.8	-	22	43.2	65.5
magister	-	3	-	-	-	-	-	-	61	59.4
productus	57.1	3	15	59.9	-	32	1.1	3.2	76	-
Hermit crab	-	9.5	-	1.7	-	4.7	-	13.5	6.1	-
Spider crab	-	-	-	1	-	-	-	10	-	-
Shrimp										
Unid. shrimp	-	-	-	-	-	2	-	6	-	-
Crangon	19.35	22.75	-	16.8	8.2	23.4	8	29.4	9.25	19.2
Coonstripe	-	-	-	-	-	-	-	-	-	-
Ghost shrimp	-	-	-	-	-	0.8	-	-	-	-
Molluscs										
Cockle	62.1	41.8	-	112.4	5	66.4	57.2	18.6	373.4	139.85
Unid. clam	12	10.8	-	-	9	14.4	4.5	10	5	7
Horse clam	5	-	-	-	5	-	-	-	-	-
Razor clam	19.6	11.7	2	5.5	-	-	39.5	-	55.5	214.2
Moon snail	-	1.2	-	-	5	-	12	3.2	3	-
Rock drill	-	-	-	-	-	-	-	1.6	6	-
Unid. barnacle	-	-	-	-	-	-	-	-	-	-
Squid	-	-	-	-	-	-	5	-	-	-
Octopus	-	-	200	130	-	-	-	-	-	-

Table 9 (cont'd)

Item	Set										
	37	38	39	40	41	42	43	44	45	46	47
	Volume of Contents (cc)										
Crab											
Unid. Crab	-	10	-	1.4	-	4	-	-	2.4	4	4.5
Cancer spp.	-	-	-	-	-	-	-	-	-	-	-
branneri	2	-	-	-	12	-	-	5	12	-	-
gracilis	44	12	7.3	10	6.5	-	-	35.8	40.5	67	-
magister	-	-	6	-	-	-	-	-	9.6	-	-
productus	3.6	-	4	21	-	-	-	17	10	-	8
Hermit crab	-	1.5	6.9	-	23.2	3	7.1	10	1.2	5	7.8
Spider crab	4	-	-	-	3.5	-	-	-	10	-	-
Shrimp											
Unid. shrimp	-	-	0.5	-	1	-	-	-	0.2	-	-
Crangon	14.9	32.4	23.65	35.5	94.1	8.4	5.2	9.2	9.3	25.1	23.4
Coonstripe	-	-	-	-	3	7.5	-	-	-	1	-
Ghost shrimp	-	-	-	-	-	-	-	-	-	-	-
Molluscs											
Cockle	32	-	40	99	16.8	-	-	242	87.5	27	11
Unid. clam	1	9	12.4	-	-	-	-	11	34.5	5.5	14.9
Horse clam	-	-	2.5	-	-	-	-	-	-	15	-
Razor clam	8	-	8	-	1.8	-	-	-	-	6	33
Moon snail	-	-	-	4	-	-	-	-	-	-	-
Rock brill	-	-	-	-	-	-	-	-	-	-	-
Unid. barnacle	-	-	-	-	-	-	-	-	-	-	-
Squid	-	-	-	-	-	-	-	-	-	-	-
Octopus	-	50	-	-	-	-	-	48	-	-	-

Table 9 (cont'd)

Item	Set										
	48	49	51	52	53	54	55	56	57	58	59
	Volume of Contents (cc)										
Crab											
Unid. Crab	2	1	2	1	-	-	-	-	-	-	0.6
Cancer spp.	-	-	-	-	-	-	-	-	-	-	-
branneri	-	6.75	-	-	-	-	-	-	-	-	-
gracilis	17	59.5	76.5	43	12.5	-	6	7.5	-	1.5	-
magister	8	-	-	-	-	-	-	36	-	-	34.4
productus	14.5	36.5	10	-	-	4	16	-	-	-	-
Hermit crab	23.9	5	22.5	22	-	-	-	-	-	-	-
Spider crab	4	-	-	-	-	-	-	-	-	-	-
Shrimp											
Unid. shrimp	-	-	-	-	-	-	-	-	-	-	3
Crangon	12.7	46.45	24.35	46.2	4	0.9	5.2	3	2	4	3
Coonstripe	-	-	-	-	-	-	-	-	-	3	-
Ghost shrimp	-	-	-	-	-	-	-	-	-	-	-
Molluscs											
Cockle	18.6	27.4	61.55	168.2	32.7	53	123.5				
Unid. clam	22.8	9	3.6	10.5	-	-	-	-	-	-	-
Horse clam	2.4	-	-	-	-	-	-	-	-	-	-
Razor clam	18.5	14.5	39.5	41	34.35	58.6	109.1	47.5	8	447	67.4
Moon snail	2	72	-	-	-	-	-	-	15	-	-
Rock drill	-	-	-	-	-	-	-	-	-	-	-
Unid. barnacle	-	-	-	-	-	-	-	-	-	-	-
Squid	-	-	-	-	-	-	-	-	-	-	-
Octopus	-	-	-	-	-	-	12	-	-	-	-

Table 9 (cont'd)

Item	Set											No. sets	Total volume
	60	61	62	68	69	80	81	82	83	85	86		
	Volume of Contents (cc)												
Crab													
Unid. crab	-	80.5	0.9	60	-	5	40	-	-	-	-	32	279.2
Cancer Spp.												1	9.25
branneri	-	-	6	-	-	-	-	-	-	-	-	24	185.35
gracilis	-	-	-	-	-	-	-	-	-	-	-	42	1042.85
magister	14	67.1	59.3	-	-	-	-	-	-	-	-	13	366.3
productus	6	3.5	20.1	-	-	-	-	-	-	-	-	29	585.6
Hermit crab	3	2	2	-	-	-	-	25	-	-	-	37	858.75
Spider crab	-	2	-	-	-	-	-	-	-	-	-	15	119
										Crab			3446.3
Shrimp													
Unid. shrimp	-	-	-	8	-	-	-	5	-	-	-	14	57.3
Crangon	5.5	10.5	6	-	-	-	-	-	-	-	-	54	987.7
Coonstripe	-	-	-	-	-	-	-	-	-	-	-	6	19.5
Ghost shrimp	-	-	-	-	-	-	-	-	-	-	-	2	2.8
										Shrimp			1067.3
Molluscs													
Cockle	-	12	-	-	-	-	-	-	-	-	-	41	2887.5
Unid. clam	4	-	4	-	-	-	-	2	-	-	-	38	477.3
Horse clam	-	1.2	-	-	-	-	-	-	-	-	-	6	31.1
Razor clam	58.5	25.5	13	-	-	-	-	-	-	-	-	40	1805.45
Moon snail	-	10.4	10.6	-	-	-	-	-	-	-	-	17	296.7
Rock drill	-	-	-	-	-	-	-	-	-	-	-	2	7.6
Unid. barnacle	-	-	-	-	-	-	-	-	-	-	-	1	0.5
Squid	-	-	-	8.4	-	-	-	10	-	-	-	6	49.3
Octopus	-	-	-	-	-	-	150	-	-	-	-	9	1675.5
										Mollusc			7230.95

Table 9 (cont'd)

Item	Set											
	2	3	4	5	6	7	8	9	10	11	12	14
	Volume of Contents (cc)											
Other Invertebrates												
Unid. worm	-	-	3	-	-	-	-	-	8.5	-	-	-
Polychaetes	2	631	-	3.5	3.2	64.5	1	88.5	9.4	7	13.7	8.2
Ribbon worm	-	12	-	-	-	0.4	-	-	-	2	21	-
Tube worm	-	1.6	-	12	-	-	-	-	-	-	-	1.6
Annelid	5.25	-	-	-	-	-	-	-	-	-	-	-
Mycid	0.25	-	-	-	-	-	-	-	-	-	-	-
Nematode	-	-	-	-	-	-	-	-	-	-	-	-
Nercid	-	-	-	-	-	-	-	-	-	-	14.5	2.5
Sipunculid	-	-	-	-	-	-	-	5	3	2	14	-
Echiuroid	-	-	-	-	-	2.4	-	-	-	-	-	-
Hydroid	-	-	-	-	-	2.4	-	-	-	-	2	12.4
Nudibranch	1.75	-	-	-	-	2.4	-	-	-	-	-	-
Euphausiid	1	-	-	-	-	300	-	-	-	-	160	-
Plankton	-	1.4	-	-	-	-	-	-	-	-	-	-
Sea pen	-	-	-	5	6	-	-	-	-	-	-	-
Sea anenome	-	-	-	-	-	-	-	-	-	-	-	-
Sea cucumber	-	4.2	-	-	-	-	-	-	-	-	-	-
Starfish	-	-	-	-	-	2	-	-	-	-	-	-
Jellyfish	-	250	7	100	-	-	-	-	-	-	-	-
Stenolepsis	0.5	-	-	-	-	-	-	-	-	-	-	-
Caudina sp.	7.5	0.7	-	-	-	-	-	-	-	-	-	-
Organic matter	0.5	8.3	-	1.75	3.2	-	-	2	-	-	19	-
Inorganic matter	1.8	-	-	2	-	0.5	-	-	-	-	1	-
Unid. invertebrates	-	-	-	1	-	2.9	-	-	-	-	-	-

Table 9 (cont'd)

Item	Set										
	15	16	17	18	21	22	23	24	25	26	27
	Volume of Contents (cc)										
Other Invertebrates											
Unid. worm	-	-	-	-	-	-	-	-	-	-	-
Polychaetes	19.75	3.5	44.1	50.5		42.8	-		1.6	11	25
Ribbon worm	-	8	6.7	-	-	7.8	-	-	-	-	-
Tube worm	-	-	-	15	-	-	-	6	-	-	-
Annelid	-	-	-	-	-	-	-	-	-	-	-
Mycid	-	-	-	-	-	-	-	-	-	-	-
Nematode	-	-	-	-	-	-	-	-	-	-	-
Nercid	-	3.5	-	10	3.6	-	-	9	-	-	-
Sipunculid	-	-	-	-	-	-	-	-	-	-	-
Echiuroid	-	3	-	-	-	-	-	-	-	-	14
Hydroid	23.25	11.4	5	0.6	-	4.5	-	-	-	-	-
Nudibranch	-	6	-	-	-	-	-	-	-	-	-
Euphausiid	-	-	200	-	-	-	-	-	-	-	-
Plankton	-	-	-	-	-	-	-	-	-	-	-
Sea pen	-	-	-	-	-	-	-	-	-	-	-
Sea anenome	18	-	-	-	-	-	-	3	-	-	-
Sea cucumber	-	12	-	-	-	-	-	-	-	-	-
Starfish	-	-	-	-	-	-	-	-	-	-	-
Jellyfish	-	130	-	-	-	76	-	12	-	17.5	10
Stenolepsis	-	-	-	-	-	-	-	-	-	-	-
Caudina sp.	-	-	-	-	-	-	-	-	-	-	-
Organic matter	18	-	8.5	60.5	-	182	-	-	-	21	5.8
Inorganic matter	-	-	-	-	-	5	-	0.5	0.8	3.15	-
Unid. invertebrates	-	-	-	-	-	-	-	-	-	-	-

Table 9 (cont'd)

Item	Set										
	28	29	30	31	32	33	34	35	36	37	38
	Volume of contents (cc)										
Other Invertebrates											
Unid. worm	-	-	-	-	-	-	-	-	-	-	-
Polychaetes	9.5	-	-	17	75.2	5	4	13	4	1.5	25.6
Ribbon worm	-	-	-	-	-	-	-	-	-	-	-
Tube worm	-	-	1.5	5	-	-	-	2.2	-	6	-
Annelid	-	-	-	-	-	-	-	-	-	-	-
Mycid	-	-	-	-	-	-	-	-	-	-	-
Nematode	-	-	-	-	-	-	-	-	-	-	-
Nercid	1.2	-	2.4	-	-	-	-	-	-	-	-
Sipunculid	-	-	-	-	4.8	-	-	-	-	-	-
Echiuroid	-	-	-	-	9	5	-	-	-	-	2
Hydroid	-	-	-	-	-	-	-	-	-	-	-
Nudibranch	-	-	-	-	-	-	-	-	-	-	-
Euphausiid	-	-	160	-	-	-	-	-	-	-	-
Plankton	-	-	-	-	-	-	-	-	-	-	-
Sea pen	-	-	-	-	-	-	-	-	-	-	-
Sea anenome	15	-	-	5	-	-	-	-	-	120	-
Sea cucumber	-	-	-	-	-	-	-	-	-	-	-
Starfish	-	-	-	-	-	-	-	-	-	-	-
Jellyfish	15	-	-	-	18	-	215	25	-	-	-
Stenolepsis	-	-	-	-	-	-	-	-	-	-	-
Caudina sp.		-	-	-	-	-	-	-	-	-	9.6
Organic matter	5.9	0.5	19	-	10.2	51.8	16.5	0.5	4.8	0.4	-
Inorganic matter	-	-	-	0.5	1.2	-	0.5	3	-	-	-
Unid. invertebrates	-	-	-	-	-	-	-	-	-	-	-

Table 9 (cont'd)

Item	Sets											
	39	40	41	42	43	44	45	46	47	48	49	51
	Volume of contents (cc)											
Other Invertebrates												
Unid. worm	11.4	22.8	34.3	-	-	6	7.8	40.3	2	17.2	26.8	13.7
Polychaetes	-	10.3	-	-	-	-	-	-	-	-	-	-
Ribbon worm	-	-	-	-	-	-	-	-	-	-	9	-
Tube worm	-	-	-	-	-	-	-	-	-	-	-	-
Annelid	-	-	-	-	-	-	-	-	-	-	-	-
Mycid	-	-	-	-	-	-	-	-	-	-	-	-
Nematode	-	-	-	-	-	-	-	-	-	-	-	-
Nercid	-	-	-	-	-	-	-	-	-	-	-	-
Sipunculid	-	-	-	-	-	-	-	-	-	-	-	-
Echiuroid	2.8	-	9.8	-	-	-	-	6	7.4	-	-	3
Hydroid	2.5	2	-	-	-	-	1.2	4.8	2	0.8	44	5
Nudibranch	-	-	-	-	-	-	-	-	-	-	-	-
Euphausiid	-	-	12	-	-	135	-	-	-	-	-	1
Plankton	-	-	-	-	-	-	-	-	-	-	-	-
Sea pen	-	-	-	-	-	-	-	-	8	-	-	-
Sea anenome	-	-	159	-	-	-	-	-	-	-	5	-
Sea cucumber	-	-	-	-	-	-	-	-	-	-	-	-
Starfish	-	-	-	-	-	-	-	-	-	-	-	-
Jellyfish	1	-	199.7	-	7	-	60	65	32.5	6	77	10
Stenolepsis	-	-	-	-	-	-	-	-	-	-	-	-
Caudina sp.	-	-	-	-	-	-	-	-	-	-	-	-
Organic matter	11.5	-	13.6	0.5	-	50	56	14	1	1	6	6
Inorganic matter	-	3.5	-	-	-	4.5	-	1	6.5	3.5	0.5	-
Unid. invertebrates	-	5	-	-	-	-	-	-	-	-	-	-

Table 9 (cont'd)

Item	Set												
	52	53	54	55	56	57	58	59	60	61	62	68	69
	Volume of contents (cc)												
Other Invertebrates													
Unid. worm	20.3	0.5	-	6	-	-	2.5	4	1.5	22	23.3	-	-
Polychaetes	-	-	-	-	-	-	-	-	-	-	-	-	-
Ribbon worm	-	-	-	-	-	-	-	-	-	-	6	-	-
Tube worm	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelid	-	-	-	-	-	-	-	-	-	-	-	-	-
Mycid	-	-	-	-	-	-	-	-	-	-	-	-	-
Nematode	-	-	-	-	-	-	-	-	-	-	-	-	-
Nercid	-	4.8	-	-	3.6	-	-	-	-	-	-	-	-
Sipunculid	-	-	-	-	-	-	-	-	-	-	-	-	-
Echiuroid	2	-	-	-	2	-	-	-	1.5	-	3	-	-
bydroid	3	-	-	-	-	-	-	-	-	-	-	-	-
Nudibranch	-	-	-	-	-	-	-	-	-	-	-	-	-
Euphausiid	-	-	-	-	-	-	-	-	-	-	-	5.4	18
Plankton	-	-	-	-	-	-	-	-	-	-	-	-	5
Sea pen	-	-	-	-	-	-	-	-	-	-	-	-	-
Sea anenome	-	-	-	-	-	-	-	-	-	-	2	-	-
Sea cucumber	-	-	-	-	-	-	-	-	-	-	-	-	-
Starfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Jellyfish	9	-	-	-	-	-	-	-	2	6	188.5	15.8	-
Stenolepsis	-	-	-	-	-	-	-	-	-	-	-	-	-
Caudina sp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Organic matter	14	-	-	20	3	-	-	10	-	0.5	15	-	-
Inorganic matter	-	-	-	-	1.2	-	-	2.85	0.5	-	-	1.6	-
Unid. invertebrates	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 9 (cont'd)

Item	Set 80	81	82	83	85	86	No. sets	Total volume
	Volume of contents (cc)							
Other Invertebrates								
Unid. worm	-	-	-	-	-	-	2	11.5
Polychaetes	-	1	-	-	-	-	47	1448.35
Ribbon worm	-	-	-	-	-	-	8	68.2
Tube worm	-	-	-	-	-	-	11	65.9
Annelid	-	-	-	-	-	-	1	5.25
Mycid	-	-	-	-	-	-	1	0.25
Nematode	-	-	1.6	-	-	-	1	1.6
Nercid	-	-	-	-	-	-	10	5.1
Sipunculid	-	-	-	-	-	-	5	28.8
Echiuroid	-	-	-	-	-	-	15	72.9
Hydroid	-	-	0.5	-	-	-	18	127.35
Nudibranch	-	-	-	-	-	-	3	10.1
Euphausiid	-	250	432.3	182.4	-	87.5	14	1953.9
Plankton	-	-	-	-	-	-	2	6.4
Sea pen	-	-	-	-	-	-	3	19
Sea anenome	-	-	-	-	-	-	8	327
Sea cucumber	-	-	-	-	-	-	2	16.2
Starfish	-	0.3	-	-	-	-	2	2.3
Jellyfish	-	-	15	1	-	-	28	1571
Stenolepsis	-	-	-	-	-	-	1	0.5
Caudina sp.	-	-	-	-	-	-	2	8.2
Organic matter	0.5	-	4.3	3.5	-	-	39	674.95
Inorganic matter	1	-	-	-	-	-	25	51.8
Unid. invertebrates	-	-	-	-	-	-	3	8.9
								6535.5

Table 10. Dogfish stomach contents by species group and by set, ARCTIC HARVESTER, June 1978.

Fish species	Set											
	1	2	3	4	5	6	7	8	9	10	11	12
	Volume of contents (cc)											
Unid. fish remains	17	36.2	3	407	190	5	8	3.6	4	-	22	-
Unid. flatfish	-	-	-	-	-	-	135	-	-	-	3	-
*Juvenile sole	-	-	-	1.44	-	-	-	-	-	24	-	-
Juvenile rock sole	-	-	-	-	-	-	-	-	-	-	-	-
Rock sole	-	-	-	-	-	-	-	-	-	-	-	-
English sole	-	-	-	-	-	-	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-	-	-	-	-	-	-
Turbot	-	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-	-
Dogfish	-	-	-	150	-	-	-	-	-	-	-	-
Ratfish	-	-	-	-	13	-	-	-	-	-	24	-
Pollock	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	100	-	-	-	-	-
Pacific cod (Juv)	15	720	-	50	-	-	-	-	-	-	-	-
Salmon	100	-	-	-	-	-	-	-	-	400	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-	-
Sandlance	-	30	41	-	-	-	-	-	-	-	-	-
Sculpin	-	-	198.1	286	-	-	-	18	-	-	90	10
Snailfish	-	3	-	-	-	-	120.5	24.6	1	5	15.3	60
Snake prickleback	-	-	-	-	-	-	-	31	-	2	-	-
Lumpsucker	-	-	-	-	-	-	-	-	-	-	-	-
Sea poacher	-	-	4.2	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-

* Juvenile sole: J-Juvenile
Y-Young of year

Table 10 (cont'd)

Fish species	Set												
	13	14	15	16	17	18	19	20	21	22	23	24	25
	Volume of contents (cc)												
Unid. fish remains	1.2	276	17.5	167.5	-	8	-	1	250	6	11	-	30
Unid. flatfish	-	50	-	-	-	-	-	-	-	-	-	-	-
*Juvenile sole	-	-	-	-	-	-	-	-	-	-	-	55	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Juvenile rock sole	-	-	-	-	-	-	-	-	-	-	-	-	-
Rock sole	20	-	-	18	-	-	-	-	-	-	32	-	-
English sole	-	-	-	-	-	-	-	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-	-	-	-	-	-	-	-
Turbot	-	180	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-	150	3
Dogfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Ratfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	125	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific cod (Juv)	-	-	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	-	30	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-	18	-	-
Herring	135	200	-	190	20	-	-	-	-	-	20	-	-
Sandlance	-	33.5	526	102	-	87	16	16	-	-	12	27.5	12
Sculpin	-	-	-	-	-	-	-	-	-	-	-	-	-
Snailfish	-	-	-	-	160	-	-	-	-	-	-	-	-
Snake prickleback	-	-	-	20	-	-	-	-	-	-	-	-	-
Lumpsucker	-	8	-	-	-	-	-	-	-	-	-	-	-
Sea poacher	-	-	6	-	-	-	-	-	-	-	-	-	-

Table 10 (cont'd)

Fish species	Set													
	26	27	28	29	30	31	32	33	34	35	36	39	41	42
	Volume of contents (cc)													
Unid. fish remains	86	-	-	25	-	15.2	13.5	5	43	97	392.5	-	-	-
Unid. flatfish	-	-	-	36	5	3	6	-	-	30	-	-	-	-
*Juvenile sole	-	-	-	-	1Y	-	8J	-	-	-	-	-	-	-
	-	-	-	-	3J	-	-	-	-	-	9	-	-	-
Juvenile rock sole	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rock sole	-	-	-	10	-	-	-	-	-	-	-	-	-	-
English sole	-	-	-	17	-	-	-	-	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turbot	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dogfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ratfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	45	-	-	-	-	-	-
Pacific cod (Juv)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	-	-	-	-	-	15	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	50	-	-	-	-	-	-	-	-
Sandlance	42.5	-	-	27	35	48.5	70.5	158.5	20	15.4	578	1	-	16
Sculpin	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Snailfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Snake prickleback	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lumpsucker	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sea poacher	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 10 (cont'd)

Fish species	Set												
	43	44	45	48	49	50	51	52	53	54	55	56	57
	Volume of contents (cc)												
Unid fish remains	20	-	13	27	-	2	133	10	-	10	-	204	191
Unid flatfish	-	-	-	10.5	-	8	5	-	1	-	-	2	-
*Juvenile sole	-	-	-	-	-	6Y	-	-	18J	-	-	-	-
	-	-	-	-	-	-	-	-	5Y	-	-	-	-
Juvenile rock sole	-	-	-	-	-	-	-	-	-	-	-	-	-
Rock sole	-	-	-	-	-	-	-	-	-	-	-	-	-
English sole	-	-	-	-	-	-	-	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-	24	-	-	-	-	-	-
Turbot	-	-	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-	-	-
Dogfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Ratfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	200	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	210	-	-
Pacific cod (Juv)	-	-	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	-	-	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	90	-	-
Sandlance	96	7	32	197.5	165	346	65	82.5	24.5	-	182	109	106
Sculpin	9	-	10	-	-	-	-	-	-	-	-	-	-
Snailfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Snake prickleback	-	-	-	-	-	-	-	-	-	-	-	-	-
Lumpsucker	-	-	-	-	-	-	-	-	-	-	-	-	-
Sea poacher	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 10 (cont'd)

Fish species	Set											
	58	59	61	62	63	65	67	68	69	70	71	72
	Volume of contents (cc)											
Unid. fish remains	10	-	9.8	389.5	-	5	-		82	-	66	53
Unid. flatfish	-	-	-	-	-	-	-		-	-	-	35
*Juvenile sole	-	-	-	-	-	-	1Y		-	40Y	35Y	2Y
	-	-	-	-	-	-	-		-	-	-	-
Juvenile rock sole	-	-	-	-	-	-	-		-	-	-	-
Rock sole	-	-	-	-	-	-	-		-	-	-	-
English sole	90	-	-	-	-	-	-		-	-	-	-
Sand sole	-	-	-	-	-	-	-		-	-	-	-
Turbot	-	-	-	-	-	-	-		-	-	-	-
Halibut	-	-	-	-	-	-	-		-	-	-	-
Dogfish	-	-	-	-	-	-	20		112	-	-	-
Ratfish	10	-	-	-	-	-	-		-	-	-	-
Pollock	-	-	150	-	-	-	-		-	-	12	-
Sablefish	-	-	-	-	-	-	-		-	-	-	-
Pacific cod (Juv)	-	-	-	-	-	-	-		-	-	-	-
Salmon	-	-	-	-	-	-	-		30	-	15	-
Eulachon	-	-	-	-	-	-	-		-	-	-	-
Herring	80	-	20	-	-	-	200		-	-	-	70
Sandlance	28.4	82	469	38	225	83	5	5	429.5	64	253	156.5
Sculpin	3	-	-	-	-	-	-		24	-	-	-
Snailfish	-	-	-	-	-	-	-		-	-	-	-
Snake prickleback	-	-	-	-	-	-	-		-	-	-	-
Lumpsucker	-	-	-	-	-	-	-		-	-	-	-
Sea poacher	-	-	-	-	-	-	-		-	-	-	-

Table 10 (cont'd)

Fish species	Set					No. sets	Total volume
	73	74	75	77	81		
	Volume of contents (cc)						
Unid. fish remains	2	12.5	-	81	-	47	3553
Unid. flatfish	4	-	-	-	-	15	333.
*Juvenile sole	-	-	3.5Y	-	-	4J	34J
	-	-	-	-	-	10Y	101.9Y
Juvenile rock sole	-	-	-	-	-	1	9
Rock sole	-	-	-	-	-	4	80
English sole	-	-	-	-	-	2	107
Sand sole	-	200	-	-	-	2	224
Turbot	-	175	-	-	-	2	355
Halibut	-	-	-	-	-	2	174
Dogfish	-	-	-	-	-	5	298
Ratfish	60	-	-	-	-	3	170
Pollock	100	-	-	292	-	6	879
Sablefish	-	-	-	135	-	7	1575
Pacific cod (Juv)	-	-	-	-	-	1	100
Salmon	-	-	-	-	-	4	90
Eulachon	-	-	-	-	-	1	18
Herring	-	365	50	8	-	19	1687
Sandlance	287.1	426	-	4	-	55	6522.9
Sculpin	-	-	-	-	-	7	82
Snailfish	-	-	-	-	-	1	160
Snake prickleback	-	-	-	-	-	1	20
Lumpsucker	-	-	-	-	-	2	12.2
Sea poacher	-	-	-	-	-	1	6

Table 10 (cont'd)

Item	Set										
	1	2	3	4	5	6	7	8	9	10	11
	Volume of contents (cc)										
Crab											
Unid. crab	19.25	45	10.8	64.6	37.6	-	60.5	53	0.5	41	25
Cancer spp.	-	-	-	-	-	-	-	-	-	-	-
branneri	-	-	-	-	-	-	-	-	-	-	-
gracilis	-	-	36	2	-	40	95	-	-	80	40.5
magister	41	3	104.4	79	48	-	487	10	-	42	-
productus	-	-	-	-	-	-	995	20	15	3	30
Hermit crab	71	45	20	182	27.5	-	-	38	-	5	58.5
Horse crab	-	-	-	-	-	-	10	-	-	-	-
Pea crab	-	-	-	-	-	-	-	1	-	-	-
Spider crab	2	20.5	3	-	-	-	-	-	-	16.5	-
Shrimp											
Unid. shrimp	-	-	-	-	2.4	-	-	-	-	-	-
Crangon	7.25	6	28.4	24	30.3	-	35	13	11.5	68	51.5
Ghost shrimp	-	-	-	-	-	-	-	-	-	-	-
Pink shrimp	-	-	-	-	-	-	-	-	-	-	-
Striped shrimp (coonstripe)	-	-	-	-	-	-	-	-	-	-	-
Molluscs											
Cockle	48	-	23.4	17	10	-	0.5	32	-	206.2	-
Unid. clam	6	-	-	7	90	15	20.5	83.4	22	10	51
Horse clam	-	-	3	-	-	-	-	-	5	-	-
Razor clam	-	-	-	-	-	-	-	-	-	-	-
Moon Snail	-	-	-	-	-	-	-	-	1	-	-
Clam foot	-	-	-	-	-	-	-	-	-	-	-
Unid. barnacle	-	-	-	-	-	-	-	-	-	-	-
Octopus	-	7.2	-	21	-	-	321	8	10	-	-
Squid	-	-	-	-	-	-	-	-	-	36	-

Table 10 (cont'd)

Item	Set												
	12	13	14	15	16	17	18	19	20	21	22	23	24
	Volume of contents (cc)												
Crab													
Unid. crab	5	26	3.5	27.5	123	20	37	-	4	45	117	5	20.6
Cancer spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
branneri	-	-	-	-	-	-	-	-	-	-	-	-	-
gracilis	30	30.6	45	69	21	-	8	-	36	30	2	20	-
magister	-	21	-	-	-	-	36	31.5	-	-	-	77.5	-
productus	30	-	38	-	-	-	-	-	-	105	-	-	5
Hermit crab	-	-	8	108.4	70.5	-	14	64	-	-	-	-	-
Horse crab	-	-	-	-	-	-	-	-	-	-	-	-	-
Pea crab	-	-	-	9	-	-	-	-	-	-	-	-	-
Spider crab	-	-	5	19	34	1-	-	-	-	-	-	-	-
Shrimp													
Unid. shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-
Crangon	-	16.4	32.5	35.6	35.5	-	11	5	13	-	22	22.5	14.9
Ghost shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-
Pink shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-
Striped shrimp (coonstripe)	-	-	-	-	-	-	-	-	-	-	-	-	-
Molluscs													
Cockle	35	-	32	8	-	-	-	-	-	50	-	10	5
Unid. clam	28	74.9	-	6	78	-	6	-	23	-	-	17	35
Horse clam	-	-	-	-	-	-	-	-	-	-	-	-	-
Razor clam	-	-	-	-	-	-	-	-	-	-	-	-	30
Moon snail	-	-	-	-	-	-	-	-	-	-	-	-	-
Clam foot	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. barnacle	-	-	-	-	-	-	-	-	-	-	-	-	-
Octopus	-	-	-	56	54	-	36	-	-	-	-	-	200
Squid	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 10 (cont'd)

Item	Set												
	25	26	27	28	29	30	31	32	33	34	35	36	39
	Volume of contents (cc)												
Crab													
Unid. crab	24	2	-	-	30	2.5	30	20	8	77	-	11	1
Cancer spp.	-	-	-	-	-	-	-	-	-	-	-	-	-
branneri	-	-	-	-	-	-	-	-	-	-	-	-	-
gracilis	-	13	-	-	-	9	15	10	2	96	34	-	-
magister	-	-	-	-	-	20	62	-	-	41	13.5	-	-
productus	-	-	-	-	10	-	-	-	5	24	30	10	-
Hermit crab	60	-	5	-	15	-	2.4	4	10	-	17	21	-
Horse crab	-	-	-	-	-	-	-	-	-	-	-	-	-
Pea crab	-	-	-	-	-	-	-	-	-	-	-	-	-
Spider crab	-	-	-	-	-	-	6	-	-	-	-	-	-
Shrimp													
Unid. shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-
Crangon	15	30	-	-	31.65	3	80.8	86	33.4	25	32.5	15	-
Ghost shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-
Pink shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-
Striped shrimp (coonstripe)	-	-	-	-	-	-	-	-	-	-	-	-	-
Molluscs													
Cockle	10	-	-	-	53.5	97.5	40	-	6	-	18.5	50	-
Unid. clam	2	54.5	-	18	22.2	20	85	-	-	10	9.5	2	-
Horse clam	-	-	-	-	-	-	-	-	-	-	-	-	-
Razor clam	-	-	-	-	-	-	-	-	-	-	-	-	-
Moon snail	-	-	-	-	-	-	-	-	-	-	-	-	-
Clam foot	-	11	-	-	-	-	-	187	-	73.5	-	-	-
Unid. barnacle	2	-	-	-	-	-	-	-	-	-	-	-	-
Octopus	-	18	-	-	-	-	-	10	-	-	18	-	-
Squid	-	-	-	-	-	-	16	20	-	-	-	-	-

Table 10 (cont'd)

Item	Set													
	41	42	43	44	45	48	49	50	51	52	53	54	55	56
	Volume of contents (cc)													
Crab														
Unid. crab	-	-	-	2	4	33	15	5	50	3.9	4	18	-	20
Cancer spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
branneri	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gracilis	-	12	8	-	14	60	-	-	17	40	-	7	-	102
magister	-	-	106	6	-	2	-	-	-	-	-	-	-	-
productus	-	40	-	2	-	54	-	4	-	-	-	80	-	3
Hermit crab	-	-	6	-	27	-	-	39	15	6	-	11	-	6
Horse crab	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pea crab	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spider crab	-	-	-	-	-	28	-	-	-	2	14	-	-	-
Shrimp														
Unid. shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crangon	-	-	2	-	-	32.5	-	56.5	56	27.3	4	15	5.5	16.9
Ghost shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pink shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Striped shrimp (coonstripe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Molluscs														
Cockle	-	-	10	11	-	-	50	-	-	16	2	-	36	187
Unid. clam	-	-	-	-	-	34	-	-	-	-	-	-	-	-
Horse clam	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Razor clam	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moon snail	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clam foot	-	-	-	-	-	51.5	-	-	116	-	-	-	-	-
Unid. barnacle	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Octopus	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Squid	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 10 (cont'd)

Item	Set											
	57	58	59	61	62	63	65	67	68	69	70	71
	Volume of contents (cc)											
Crab												
Unid. crab	24	58.5	56	39	5	3	48	-	5	198	12	42
Cancer spp.	-	-	-	-	-	-	-	-	-	-	-	-
branneri	-	-	-	-	-	-	-	-	-	-	-	-
gracilis	78	-	-	3.5	5	-	10.5	65	-	219	-	61
magister	-	25	10	180.4	24	6	10	-	-	60	-	15
productus	-	24	3	16	29	-	-	4	-	679	-	43
Hermit crab	-	75	-	-	-	18	-	-	13	3	7	20
Horse crab	-	-	-	-	-	-	-	-	-	-	-	-
Pea crab	-	-	-	-	-	-	-	-	-	-	-	-
Spider crab	-	41.5	41	-	36	-	10	6	-	16	7	20.5
Shrimp												
Unid. shrimp	5	-	6	-	7.5	-	-	-	-	-	-	8
Crangon	48	47.5	16.5	15.3	20	20	14	82.5	9.5	36.6	12	31
Ghost shrimp	-	-	7.5	-	-	-	-	-	-	-	-	-
Pink shrimp	-	5	-	-	-	-	-	-	-	-	5	-
Striped shrimp (coonstripe)	-	4.5	-	-	-	-	-	-	68	-	-	-
Molluscs												
Cockle	-	8.38	-	3	-	43	-	23	-	59	-	19
Unid. clam	-	-	-	4.5	110	-	-	-	4.5	-	-	-
Horse clam	-	-	-	-	-	-	-	-	-	-	-	-
Razor clam	-	-	-	-	-	-	-	-	-	-	-	-
Moon snail	-	-	-	-	-	-	-	-	-	40	-	-
Clam foot	84	-	-	-	-	-	92.5	-	-	78.5	-	36
Unid. barnacle	-	-	-	-	-	-	-	-	-	-	-	-
Octopus	-	-	-	21	-	-	120	10	-	54	-	22
Squid	-	-	-	-	-	-	-	-	-	10	-	-

Table 10 (cont'd)

Item	Set 72	73	74	75	Pollock tows 77	81		Total No.	Total volume
	Volume of contents (cc)								
Crab									
Unid. crab	13	6	3	-	-	-		56	1663.75
Cancer spp.	-	-	-	-	-	-			
branneri	-	2.4	-	-	-	-		1	2.4
gracilis	57.5	47.5	160.5	-	-	-		41	1731.6
magister	15	7.1	56	-	-	-		30	1639.4
productus	-	2	-	-	-	-		28	2303
Hermit crab	26	25	98	-	-	-		37	1241.3
Horse crab	-	-	-	-	-	-		1	10
Pea crab	-	-	-	-	-	-		2	10
Spider crab	-	-	-	-	-	-		20	338
							Crab		8939.45
Shrimp									
Unid. shrimp	-	-	-	-	-	-		5	28.9
Crangon	25.9	12	32	-	-	-		54	1474.2
Ghost shrimp	-	-	-	-	-	-		1	7.5
Pink shrimp	-	-	-	-	-	-		2	10
Striped shrimp (coonstripe)	-	-	-	-	-	-		2	72.5
					-	-	Shrimp		1593.1
Molluscs									
Cockle	140	191.4	181	7	-	-		37	1814.8
Unid. clam	3	-	-	-	-	-		31	952
Horse clam	-	-	-	-	-	-		2	8
Razor clam	-	-	-	-	-	-		1	30
Moon snail	-	-	-	-	-	-		2	41
Clam foot	-	-	-	-	-	-		9	730
Unid. barnacle	-	-	-	-	-	-		1	2
Octopus	-	100	-	-	-	-		21	1297.2
Squid	-	-	-	-	-	-		5	94
					-	-	Mollusc		4969

Table 10 (cont'd)

Item	Set												
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Volume of contents (cc)												
Other Invertebrates													
Unid. worm	-	-	-	-	-	-	-	5	-	-	-	-	7.5
Polychaetes	45	27.8	63.7	4.5	23.2	-	26	2	1	17	63.5	12.5	11.4
Tubeworm	-	-	-	5	-	-	-	-	-	1	-	-	8.6
Flatworm	-	-	-	-	-	-	-	-	-	34	-	-	-
Roundworm	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelid	-	-	-	2	-	-	-	-	-	-	-	-	-
Arrow worm	-	-	-	-	-	-	-	-	-	-	-	-	-
Sipunculid	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. invertebrates	-	3	1	-	-	-	-	-	-	-	-	2.5	-
Euphausiids	40	-	-	-	-	-	13.5	57	-	100	-	20	136
Sea pen	-	-	-	-	-	-	2	-	-	-	10	-	-
Sea anenome	-	-	-	-	-	-	-	-	-	-	5	-	-
Sea mouse	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. tunicate	-	-	-	-	-	-	-	-	-	-	-	-	-
Starfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Sponge	-	-	-	-	-	-	-	-	-	-	-	-	-
White jellyfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Red jellyfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. jellyfish	-	95	45	-	5	-	50	-	-	4.2	4	1612	197
Amphipods	-	-	-	-	-	-	-	0.4	-	-	-	-	-
Unid. organic	545	268.3	12	2.5	2.5	-	24	8	1	17.1	19.7	154	108.2
Inorganic	-	-	-	-	-	-	-	-	-	-	1	10	1

Table 10 (cont'd)

Item	Set												
	14	15	16	17	18	19	20	21	22	23	24	25	26
	Volume of contents (cc)												
Other Invertebrates													
Unid. worm	-	-	-	-	-	-	-	-	6	-	-	-	-
Polychaetes	33.5	38	83.5	-	-	9.5	5	20	10	1	41	-	43
Tubeworm	5	-	-	-	-	-	-	-	-	-	-	-	-
Flatworm	-	19.5	-	-	-	-	-	-	-	-	-	-	-
Roundworm	-	-	7.5	-	-	-	-	-	-	-	-	-	-
Annelid	-	7.5	-	-	-	-	-	-	-	-	-	-	-
Arrow worm	-	-	-	-	-	-	-	-	-	-	-	-	-
Sipunculid	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. invertebrates	-	-	-	-	-	-	-	-	5	-	-	-	-
Euphausiids	-	-	-	-	-	2.5	-	-	30	-	30	6	5
Sea pen	-	-	-	-	-	-	-	-	-	-	-	-	-
Sea anenome	-	-	-	-	-	-	-	-	-	-	-	-	11
Sea mouse	-	-	12	-	-	-	-	-	-	-	-	-	-
Unid. tunicate	-	-	-	-	-	-	-	-	-	-	-	-	-
Starfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Sponge	-	-	-	-	-	-	-	-	-	-	-	-	-
White jellyfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Red jellyfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. jellyfish	140	230	59	-	88	396.5	304.5	210	715	260	1209	20	171
Amphipods	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. organic	149	57.5	210.5	-	10	8	37.5	-	108	25	272	75	107
Inorganic	-	14	-	-	-	9.5	-	-	1	-	-	4.5	-

Table 10. (Cont'd)

Item	Set												
	27	28	29	30	31	32	33	34	35	36	39	41	42
	Volume of contents (cc)												
Other Invertebrates													
Unid. worm			-	-	-	-	-	-	-	-	-	-	-
Polychaetes			66.25	54.5	110.5	43.5	34.5	23	41.1	121.5	-	-	37
Tubeworm			-	-	-	-	3	-	-	-	-	-	-
Flatworm			-	-	7.5	-	10	-	-	3	-	-	-
Roundworm			-	-	-	2	-	-	-	-	-	-	-
Annelid			-	-	-	-	-	-	-	-	-	-	-
Arrow worm			-	-	-	-	-	-	-	-	-	-	15
Sipunculid			-	-	-	-	-	-	-	-	-	-	-
Unid. invertebrates			-	-	-	-	2	-	10	-	-	-	-
Euphausiids			200	266	-	-	-	-	-	-	-	-	-
Sea pen			5	-	-	-	-	-	-	-	-	-	-
Sea anenome			-	-	-	-	-	-	-	-	-	-	-
Sea mouse			-	-	-	-	-	-	-	-	-	-	-
Unid. tunicate			-	-	-	-	-	-	-	-	-	-	-
Starfish			-	-	-	-	-	-	-	-	-	-	-
Sponge			-	-	-	10	-	-	-	-	-	-	-
White jellyfish			-	-	-	-	-	-	-	-	-	-	-
Red jellyfish			-	-	-	-	-	-	-	-	-	-	-
Unid. jellyfish			785	357.5	327.6	147	395.1	55.5	52	30	-	-	87
Amphipods			-	-	-	-	-	-	-	-	-	-	-
Unid. organic			155	60.8	283.5	325.5	260.5	56.5	88	57	10	-	-
Inorganic			14.4	-	-	-	-	3.5	-	0.5	-	-	-

Table 10 (cont'd)

Item	Set												
	43	44	45	48	49	50	51	52	53	54	55	56	57
	Volume of contents (cc)												
Other Invertebrates													
Unid. worm	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychaetes	8	20	35	27.5	-	25	179	133.8	34	137	23.5	97.1	27
Tubeworm	-	-	4	-	-	-	-	-	-	-	-	7	-
Flatworm	-	-	6	-	-	-	-	-	-	-	-	-	-
Roundworm	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelid	-	-	-	-	-	-	-	-	-	-	-	-	-
Arrow worm	-	-	-	-	-	-	-	2	-	-	-	-	-
Sipunculid	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. invertebrates	-	-	12	-	5	-	-	-	-	-	-	-	-
Euphausiids	-	-	-	24	-	-	-	-	-	-	-	-	-
Sea pen	-	-	-	-	-	-	-	-	-	-	-	-	-
Sea anenome	-	-	-	-	-	-	-	-	-	-	-	-	-
Sea mouse	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. tunicate	-	-	-	-	-	-	-	-	-	-	-	-	-
Starfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Sponge	-	-	-	-	-	-	-	-	-	-	-	-	-
White jellyfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Red jellyfish	-	-	-	509.5	-	-	150	-	-	-	-	-	250
Unid. jellyfish	197	34	196	-	5	61	222	70	152	452	85	1250	82
Amphipods	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. organic	102	10	21	6	2	402.5	246	45.5	22	128	165	342	305
Inorganic	1	-	-	-	-	6	4	-	-	-	-	-	-

Table 10 (cont'd)

Item	Set												
	58	59	61	62	63	64	65	66	67	68	69	70	71
	Volume of contents (cc)												
Other Invertebrates													
Unid. worm	-	-	-	-	-	-	-	-	-	-	2	-	-
Polychaetes	47.9	20.5	29	51	11	-	51	-	47	65	449.9	31	89
Tubeworm	-	8	-	-	-	-	-	-	-	-	-	-	-
Flatworm	-	-	10	-	-	-	12	-	-	-	31	-	3.5
Roundworm	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelid	-	-	-	-	-	-	-	-	-	-	-	-	-
Arrow worm	-	-	-	-	-	-	-	-	-	-	-	-	-
Sipunculid	10	-	-	-	-	-	-	-	-	-	-	-	-
Unid. invertebrates	-	-	-	-	-	-	-	-	-	-	-	-	-
Euphausiids	140	-	-	-	100	-	-	-	-	-	-	-	-
Sea pen	-	-	-	-	-	-	-	-	-	-	-	-	-
Sea anenome	-	-	-	-	-	-	-	-	-	-	-	-	-
Sea mouse	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. tunicate	-	-	-	-	560	-	35	-	-	-	-	-	29
Starfish	-	-	-	-	-	-	-	-	-	-	20	-	-
Sponge	-	-	-	-	-	-	-	-	-	-	-	-	-
White jellyfish	-	-	-	-	100	-	15	-	2.5	268	-	-	-
Red jellyfish	-	-	-	30	60	-	306	-	285	40	-	210	255
Unid. Jellyfish	579	209.5	157	12	87	-	-	-	55	9	2329.5	-	-
Amphipods	-	-	-	-	-	-	-	-	-	-	-	-	-
Unid. organic	306.4	88	17.5	65	81	-	49	-	20	75	76	10.5	128
Inorganic	2	-	1	10	-	-	2	-	1.5	-	5	1.5	15

Table 10 (cont'd)

Item	Set						No. sets	Total volume
	72	73	74	75	77	81		
	Volume of contents (cc)							
Other Invertebrates								
Unid. worm	-	-	-	-	-	-	4	20.5
Polychaetes	99	31.5	100	62.5	6	-	59	3047.15
Tubeworm	-	-	-	-	15	-	9	56.6
Flatworm	-	-	-	-	-	-	10	136.5
Roundworm	-	-	-	-	-	-	2	9.5
Annelid	-	-	-	-	-	-	2	9.5
Arrow worm	-	3	-	-	-	-	3	20
Sipunculid	-	-	-	-	-	-	1	10
Unid. invertebrates	1.6	-	-	-	-	-	9	42.1
Euphausiids	-	-	-	-	-	-	16	1170
Sea pen	-	-	-	-	-	-	3	17
Sea anenome	-	-	-	-	-	-	3	52
Sea aouse	-	-	-	-	-	-	1	12
Unid. tunicate	-	-	-	-	-	-	3	624
Starfish	-	-	-	-	-	-	1	20
Sponge	-	-	-	-	-	-	1	10
White jellyfish	12	-	-	-	-	-	6	417.5
Red jellyfish	35	-	-	-	-	-	12	2142.5
Unid. jellyfish	204.5	27	555	-	-	-	53	15,102.4
Amphipods	-	-	-	-	-	-	1	0.4
Unid. organic	32	50	88	19	-	-	63	6446.0
Inorganic	1	-	-	-	-	-	23	129.4
								29,495.05

Table 11. Occurrence, volume, and % volume of food items in dogfish stomachs, ARCTIC HARVESTER, August 1977.

Food items	Number of occurrences	Total volume (ml)	% of total volume
Unid. fish remains	237	5999.3	17.13
Unid. flatfish	18	334.6	0.96
Young-of-year flatfish	39	144.7	0.41
Rock sole	5	271.8	0.78
Flathead sole	1	25	0.07
Turbot	2	760	2.17
Sand sole	6	111.6	0.32
Sandlance	217	5632.2	16.08
Herring	15	451	1.29
Young-of-year pollock	50	228.9	0.65
Pollock	5	431.2	1.23
Dogfish	17	1028	2.93
Ratfish	2	112.5	0.32
Sandfish	4	179.7	0.51
Salmon	3	344.5	0.98
Sculpin	1	4	0.01
Smelt	1	2.5	0.007
Eulachon	1	275	0.78
Eelpout	1	9.6	0.03
Gunnel	1	6.4	0.02
Rockfish	1	250	0.71

Table 11 (cont'd)

Food items	Number of occurrences	Total volume (ml)	% of total volume
Crab			
Unid. Crab	39	279.2	0.80
Cancer spp.	4	9.25	0.03
branneri	30	185.35	0.53
gracilis	132	1042.85	2.98
magister	30	366.3	1.05
productus	75	585.6	1.67
Hermit crab	134	858.75	2.45
Spider crab	21	119	0.34
Shrimp			
Unid. shrimp	16	57.3	0.16
Crangon	408	987.7	2.82
Coonstripe	8	19.5	0.06
Ghost shrimp	2	2.8	0.008
Molluscs			
Cockle	217	2887.5	8.24
Unid. clam	73	477.3	1.36
Horse clam	6	31.1	0.09
Razor clam	177	1805.45	5.15
Moon snail	29	296.7	0.85
Rock drill	2	7.6	0.02
Unid. barnacle	1	0.5	0.001
Squid	8	49.3	0.14
Octopus	10	1675.5	4.78

Table 11 (cont'd)

Food items	Number of occurrences	Total volume (ml)	% of total volume
Other Invertebrates			
Unid. worm	7	11.5	0.03
Polychaetes	165	1448.35	4.13
Ribbon worm	4	68.2	0.19
Tube worm	9	65.9	0.19
Annelid	4	5.25	0.015
Mycid	1	0.25	0.0007
Nematode	1	1.6	0.005
Nercid	13	55.1	0.16
Sipunculid	7	28.8	0.08
Echiuroid	23	72.9	0.21
Hydroid	25	127.35	0.36
Nudibranch	3	10.15	0.03
Euphausiid	99	1953.9	5.58
Plankton	2	6.4	0.02
Sea pen	3	19	0.05
Sea anenome	10	327	0.93
Sea cucumber	2	16.2	0.05
Starfish	1	2.3	0.007
Jellyfish	91	1571	4.48
Stenolepsis	1	0.5	0.001
Caudina sp.	2	8.2	0.02
Organic matter	96	674.95	1.93
Inorganic matter	43	51.8	0.15
Unid. invertebrates	4	8.9	0.03

Table 12. Occurrence, volume, and % volume of food items in dogfish stomachs, ARCTIC HARVESTER, June 1978.

Food items	Number of occurrences	Total Volume(ml)	% of total volume
Unid. fish remains	153	3553	5.80
Unid. flatfish	21	3335	5.40
Juvenile sole *	10Y,4J	101Y,35J	0.20
Juvenile rock sole	1	9	0.01
Rock sole	4	80	0.13
English sole	3	107	0.17
Sand sole	1	224	0.36
Turbot	2	355	0.58
Halibut	2	174	0.28
Dogfish	8	298	0.48
Ratfish	4	170	0.28
Pollock	7	879	1.42
Sablefish	17	1575	2.56
Pacific cod (Juv)	1	100	0.16
Salmon	4	90	0.15
Eulachon	1	18	0.03
Herring	23	1687	2.74
Sandlance	277	6523	10.59
Sculpin	10	82	0.13
Snailfish	1	160	0.26
Snake prickleback	1	20	0.03
Lumpsucker	2	12	0.02
Sea poacher	1	6	0.01

* Juvenile sole: J - juvenile
Y - young of year

Table 12 (cont'd)

Food items	Number of occurrences	Total volume (mL)	% of total volume
Crab			
Unid. crab	189	1663.75	2.70
Cancer spp.			
branneri	1	2.4	0.004
gracilis	114	1731.6	2.81
magister	72	1639.4	2.66
productus	71	2303	3.74
Hermit crab	88	1231.3	2.02
Horse crab	1	10	0.02
Pea crab	2	10	0.02
Spider crab	33	338	0.58
Shrimp			
Unid. shrimp	5	28.9	0.05
Crangon	355	1474.2	2.39
Ghost shrimp	1	7.5	0.01
Pink shrimp	2	10	0.02
Striped shrimp	2	72.5	0.12
Molluscs			
Cockle	110	1814.8	2.95
Unid. clam	84	952	1.55
Horse clam	2	8	0.01
Razor clam	1	30	0.05
Moon snail	1	41	0.07
Clam foot	45	730	1.19
Unid. barnacle	1	2	0.003
Octopus	32	1297.2	2.11
Squid	5	94	0.15

Table 12 (cont'd)

Food items	Number of occurrences	Total volume (mL)	% of total volume
Other Invertebrates			
Unid. worm	4	20.5	0.03
Polychaetes	385	3047.15	4.95
Tubeworms	10	56.6	0.09
Flatworm	14	136.5	0.22
Roundworm	2	9.5	0.02
Annelid	3	9.5	0.02
Arrow worm	3	20	0.03
Sipunculid	1	10	0.02
Unid. invertebrates	6	42.1	0.07
Euphausiid	20	1170	1.90
Sea pen	3	17	0.03
Sea anenome	4	52	0.08
Sea mouse	1	12	0.02
Unid. tunicate	25	624	1.01
Starfish	2	20	0.03
Sponge	1	10	0.02
White jellyfish	20	417.5	0.68
Red jellyfish	55	2142.5	3.48
Unid. jellyfish	502	15102.4	24.5
Amphipod	1	0.4	-
Unid. organic	644	6446.	10.47
Inorganic	30	129.4	0.21

Table 13. Summary of walleye pollock sampled, ARCTIC HARVESTER, August 1977.

Set no.	Length			Mat.	Stomach contents	Age	Kept for Lab	Sampling remarks[1]
	Male	Female	Total					
4	-	-	1	-	-	-	-	T.C. Young-of-year.
5	-	-	1	-	-	-	-	T.C. Young-of-year.
8	-	-	10	-	-	-	-	T.C. Young-of-year.
12	-	-	4	-	-	-	-	T.C. Young-of-year.
13	-	-	26	-	-	-	-	T.C. Young-of-year.
17	-	-	3	-	-	-	-	T.C. Young-of-year.
18	-	-	4	-	-	-	-	T.C. Young-of-year.
34	-	-	27	-	-	-	-	T.C. Young-of-year.
41	-	-	7	-	-	-	-	T.C. Young-of-year.
55	-	-	4	-	-	-	-	T.C. Young-of-year.
57	-	-	3	-	-	-	-	T.C. Young-of-year.
63	4	3	7	7	7	-	-	T.C.
65	-	-	29	-	-	-	29	T.C. Young-of-year.
67	-	2	2	2	-	-	-	T.C.
68	-	-	1	-	-	-	-	T.C. Young-of-year.
69	50	73	123	123	123	-	6	T.C.
70	27	62	89	89	89	-	-	T.C.
71	24	24	48	48	48	48	-	T.C.
74	48	26	74	74	74	-	-	T.C.
75	4	15	19	19	19	-	-	T.C.
77	-	-	57	-	-	-	72	Young-of-year.
78	-	-	371	-	-	-	-	T.C. Young-of-year.
79	119	128	247	247	60	247	-	T.C., first 60 stom.
80	7	10	17	-	-	-	-	
81	128	137	265	264	60	264	-	T.C., first 60 stom.
85	13	12	25	25	25	-	-	T.C.
86	83	96	179	62	62	-	-	T.C. random 2 tubs. L/S stom./mat. Random 4 tubs
87	134	177	311	311	36	311	-	T.C., first 36 stom.
89	71	67	138	51	51	-	-	T.C. L/S, one tub L/S/mat./st
Total	712	832	2092	1322	654	870	107	

[1]Abbreviations to sampling remarks. L=length, S=sex, stom.=stomach contents, mat.=maturity, Age=fins, T.C.-total catch sampled.

Table 14. Summary of walleye pollock sampled, ARCTIC HARVESTER, June 1978.

Set no.	Length			Mat.	Stomach contents	Age	Sampling remarks[1]
	Male	Female	Total				
64	160	210	370	296	299	300	T.C., L/S; first 300 stom./mat./age
77	220	249	469	201	210	300	T.C., L/S; first 300 age; first 211 mat./stom.
78	207	251	458	147	148	300	14 of 17 tubs L/S; first 300 age; first 211 mat./sto
81	63	79	142	140	142	142	T.C.
82	41	53	94	-	-	-	T.C.
83	43	25	68	68	69	-	T.C.
84	6	6	12	-	-	-	T.C.
Tot.	740	873	1613	852	868	1042	

[1]Abbreviations to sampling remarks.

L - Length
S - Sex
stom. - stomach contents
mat - maturity
age - fins
T.C. - total catch

Table 15. Summary of incidental species sampled, ARCTIC HARVESTER, August 1977.

Species	Set	No. sampled						No. preserved
		Length	Sex	Age	Mat.	Stomach	Total	
Halibut	4	1	1			1	1	
	11	1	1				1	
	15	1				1	1	
	18	1					1	
	41	2					2	
	43	2					2	
	69	1	1	1			1	
	81	3	3			3	3	
	83	1	1	1	1	1	1	
Total		13	7	2	1	6	13	
Herring	1	83					83	
	2	95					95	
	19	5					5	
	12	4					4	
Total		187					187	
Lingcod	29	1					1	
	30	1		1			1	
	31	1		1			1	
	44	1		1			1	
	54	2		2			2	
	55	2		2			2	
	57	1		1			1	
	59	2		2			2	
	60	1		1			1	
	68	2	2		2	2	2	
	69	1	1				1	
	81	1	1		1	1	1	
	83	1	1				1	
Total		17	5	11	3	3	17	

Table 15 (cont'd)

Species	Set	No. sampled						No. preserved
		Length	Sex	Age	Mat.	Stomach	Total	
Pacific cod	5	81					81	
	12	19					19	
	18	17					17	
	34	1					1	
	40	3						
	41	38						
	42	2						
	68	20	20		20	20	20	
	80	31	31				31	
	81	22	22				22	
	82	18	18				18	
	87	2	2				2	
Total		254	93				254	
Pacific ocean perch	69	221	221				221	
	89	37	37				37	
Total		258	258				258	
Pacific viperfish	66							17
Prowfish	13							1
Red-banded rockfish	80	31	31				31	
Rougheye rockfish	66	4	4				4	
	67	12	12				12	
Total		16	16				16	
Shortraker rockfish	67	18	18				18	

Table 15 (cont'd)

Species	Set	No. sampled						No. preserved
		Length	Sex	Age	Mat.	Stomach	Total	
Silvergray rockfish	74	1	1				1	
	79	2	2				2	
	80	5	5				5	
Total		8	8				8	
Yellowtail rockfish	71	61	61				61	
	79	2	2				2	
Total		63	63				63	
Coho salmon	70	1	1				1	
Sablefish	67	98	98	98	98	98	98	
Sandfish	5	1					1	
	12	1					1	
Total		2					2	
Sandlance	1	100					100	
Soupfin shark	4	1	1			1	1	
	9	1	1				1	
	38	2	2		2	2	2	
	39	1	1		1	1	1	
Total		5	5		3	3	5	
Tadpole snailfish	66							20
Giant wrymouth	80							1

Table 15 (cont'd)

Species	Set	No. sampled						No. preserved
		Length	Sex	Age	Mat.	Stomach	Total	
C. branneri	3		1				1	
	19	12	12				12	
	20	33	33				33	
	22	16	16				16	
	23	3	3				3	
	24	1	1				1	
	29	2	2				2	
	30	8	8				8	
	44	2	2				2	
	49	7	7				7	
Total		84	85				85	
C. gracilis	3	10	10				10	
	4	4	4				4	
	8	1	1				1	
	9	5	5				5	
	12	3					3	
	17	24	24				24	
	19	18	18				18	
	20	57	57				57	
	22	35	35				35	
	23	2	2				2	
	24	5	5				5	
	25	1	1				1	
	26	5	5				5	
	27	10	10				10	
	29	5	5				5	
	30	88	88				88	
	31	49	49				49	
	32	104	104				104	

Table 15 (cont'd)

Species	Set	No. sampled						No. preserved
		Length	Sex	Age	Mat.	Stomach	Total	
C. gracilis	33	19	19				19	
	34	8	8				8	
	36	4	4				4	
	38	11	11				11	
	39	4	4				4	
	40	2	2				2	
	44	69	69				69	
	45	13	13				13	
	46	9	9				9	
	47	5	5				5	
	48	9	9				9	
	49	94	94				94	
	51	10	10				10	
	52	7	7				7	
	53	15	15				15	
	55	4	4				4	
	56	2	2				2	
	57	5	5				5	
	58	3	3				3	
	59	4	4				4	
	61	1	1				1	
	62	4	4				4	
Total		718	715				718	
C. magister	3	2	2				2	
	4	4	4				4	
	6							
	9	7	7				7	
	12	195	195				195	
	16	2	2				2	
	26	1	1				1	
	33	1	1				1	

Table 15 (cont'd)

Species	Set	No. sampled						No. preserved
		Length	Sex	Age	Mat.	Stomach	Total	
C. magister	37	2	2				2	
	38	3	3				3	
	39	33	33				33	
	40	3	3				3	
	44	6	6				6	
	45	6	6				6	
	46	9	9				9	
	47	22	22				22	
	48	24	24				24	
	49	3	3				3	
	51	17	17				17	
	52	3	3				3	
	53	2	2				2	
	54	6	6				6	
	55	4	4				4	
	56	9	9				9	
	58	18	18				18	
	59	26	26				26	
	60	609	609				609	
	61	32	32				32	
	62	316	316				316	
Total		433	433				433	
C. oregonensis	31	2	2				2	
C. productus	3		3				3	
	4	9	9				9	
	8	23	23				23	
	9	2	2				2	
	17	3	3				3	
	19	1	1				1	

Table 15 (cont'd)

Species	Set	No. sampled						No. preserved
		Length	Sex	Age	Mat.	Stomach	Total	
C. productus	22	3	3				3	
	27	5	5				5	
	30	1	1				1	
	32	3	3				3	
	36	4	4				4	
	39	1	1				1	
	44	10	10				10	
	45	3	3				3	
	46	5	5				5	
	47	5	5				5	
	48	5	5				5	
	49	54	54				54	
	51	2	2				2	
	52	1	1				1	
	54	3	3				3	
	55	4	4				4	
	56	1	1				1	
	57	4	4				4	
	58	1	1				1	
	59	3	3				3	
	61	1	1				1	
	62	3	3				3	
Total		131	134				134	

Table 16. Summary of incidental species sampled, ARCTIC HARVESTER, June 1978.

Species	Set	No. sampled							No. preserv
		Length	Weight	Sex	Age	Mat.	Stomach	Total	
Dolly varden	11	1		1		1	1	1	
Halibut	1	7	7	7	7			7	
	2	4	4	4	4			4	
	4	13	13	13	13			13	
	5	2	2	2	2			2	
	10	2	2	2	2			2	
	11	6		6	6		6	6	
	12	4		4	4			4	
	14	10			10			10	81
	15	10		10	10			10	
	16	3		3				3	
	18	2		2	2			2	
	19	1		1				1	
	48	1		1	1			1	
	52	3		1				3	
	64	1	1	1				1	
	71	4		4	4			4	
	72	1		1	1			1	
	73	2		2	2			2	
	74	1		1	1			1	
Total		77	29	64	69		6	77	
Lingcod	42	4						4	
	58	7						7	1
Total		11						11	1
Pacific cod	60	174						174	

Table 16 (cont'd)

Species	Set	No. sampled							No. preserved
		Length	Weight	Sex	Age	Mat.	Stomach	Total	
Sablefish	1	518						518	99
	2	288			148			288	
	79	10			4			10	
	83	2						2	
	84	9						9	
Total		827			148			827	99
Chinook salmon	2	2	2	2		2	2	2	
	5	1	1	1		1	1	1	
	67	2		2			2	2	
	70	11		11			11	11	
	83		1					1	
Total		16	4	16		3	16	17	
Coho salmon	66	1		1		1	1	1	
Sockeye salmon	62	1		1		1	1	1	
Sand dollar	17		17					17	
Unidentified fish	19							1	1
C. magister	1	1		1				1	1
	3	35		35				35	17
	4	85		85				85	16
	5	10		10				10	10
	8	2		2				2	2
	9	1		1				1	1
	10	17		17				17	17
	11	94		94				94	15
	13	4		4				4	4

Table 16 (cont'd)

Species	Set	No. sampled							No. preserved
		Length	Weight	Sex	Age	Mat.	Stomach	Total	
C. magister	14	59		59				59	15
	17	214		214				214	20
	18	1		1				1	1
	22	99		99				99	16
	24	61		61				61	15
	25	18		18				18	2
	26	1		1				1	1
	28	26		26				26	15
	29	1		1				1	1
	30	8		8				8	8
	31	12		12				12	11
	34	4		4				4	4
	35	2		2				2	2
	36	25		25				25	15
	37	29		29				29	15
	38	95		95				95	15
	39	155		155				155	14
	40	213		213				213	16
	41	6		6				6	5
	42	23		23				23	15
	43	40		40				40	15
	44	100		100				100	16
	45	34		34				34	17
	46	535		535				535	16
	47	119		119				119	15
	48	1		1				1	1
	49	2		2				2	2
	52	2		2				2	2
	53	2		2				2	2
	54	6		6				6	6
	55	20		20				20	16

Table 16 (cont'd)

Species	Set	No. sampled							No. preserved
		Length	Weight	Sex	Age	Mat.	Stomach	Total	
C. magister	56	19		19				19	16
	57	4		4				4	4
	60	2		2				2	2
	61	282		282				282	15
	62	247		247				247	15
	65	4		4				4	4
	67	19		19				19	17
	69	54		54				54	15
	71	2		2				2	2
	72	14		14				14	14
	73	45		45				45	15
	74	8		8				8	8
	75	2		2				2	2
Total		2864		2864				2864	526

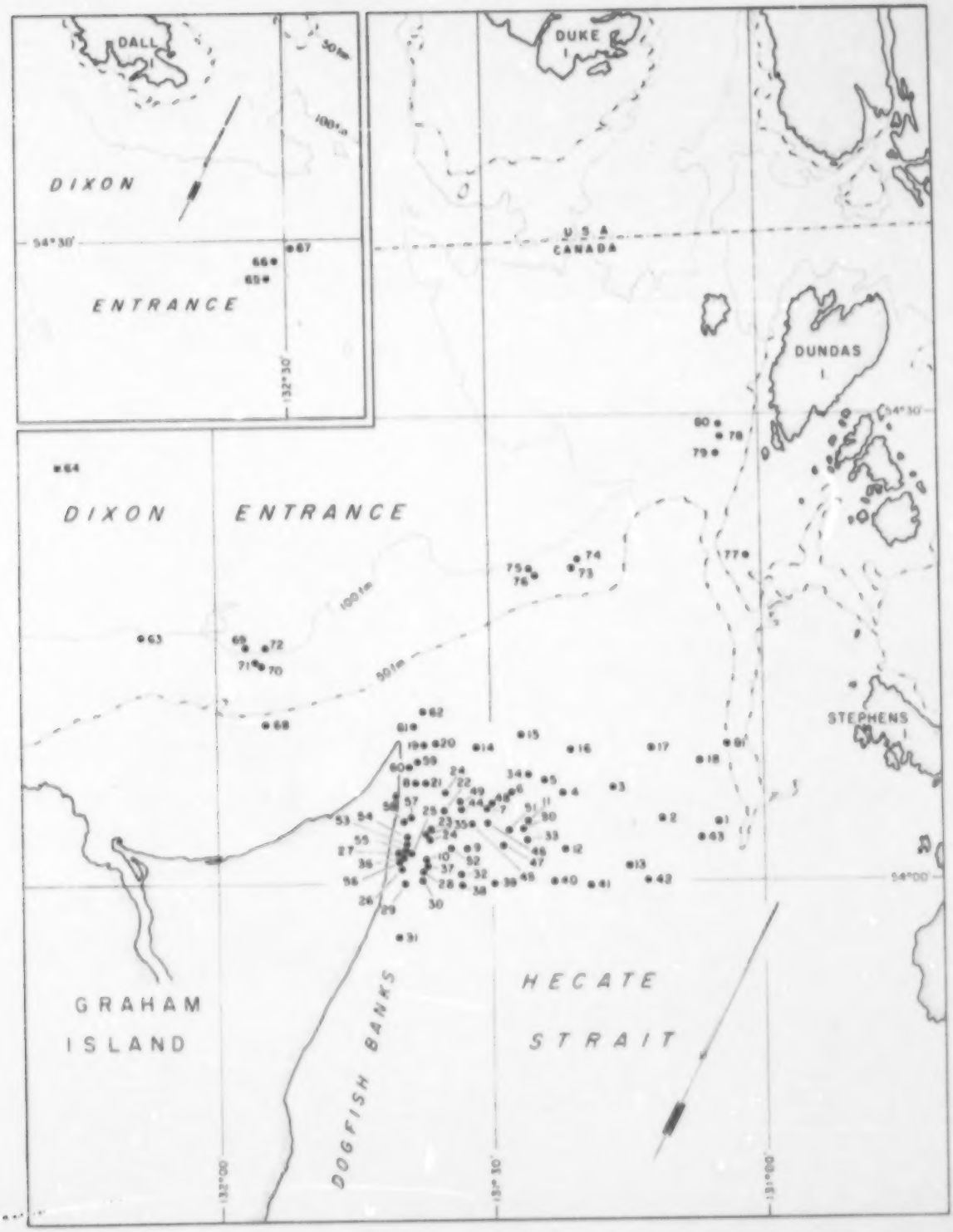


Fig. 1a. Haul locations in northern Hecate Strait for ARCTIC HARVESTER cruise, August 1977.

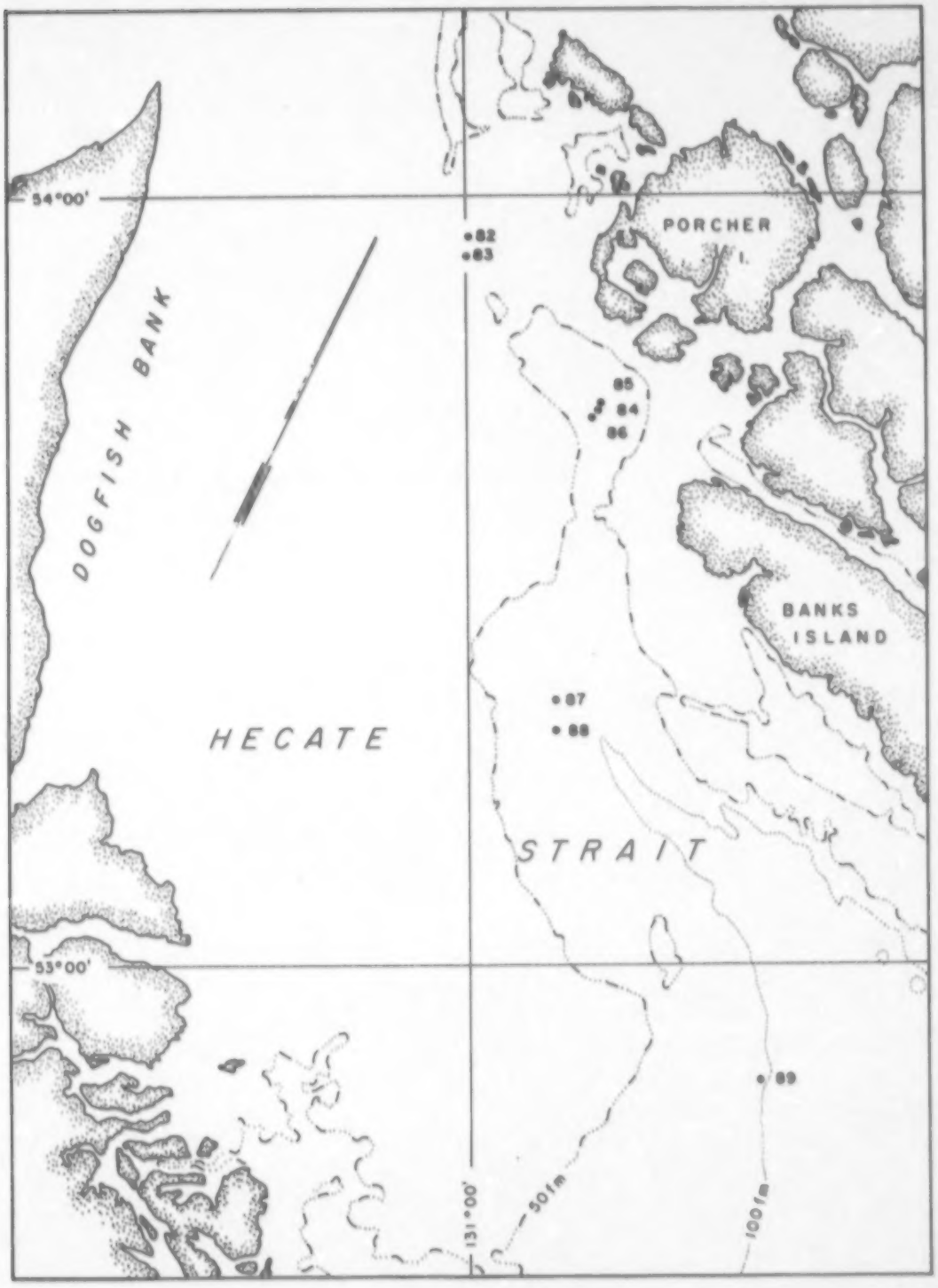


Fig. 1b. Haul locations in eastern Hecate Strait for ARCTIC HARVESTER cruise , August 1977.

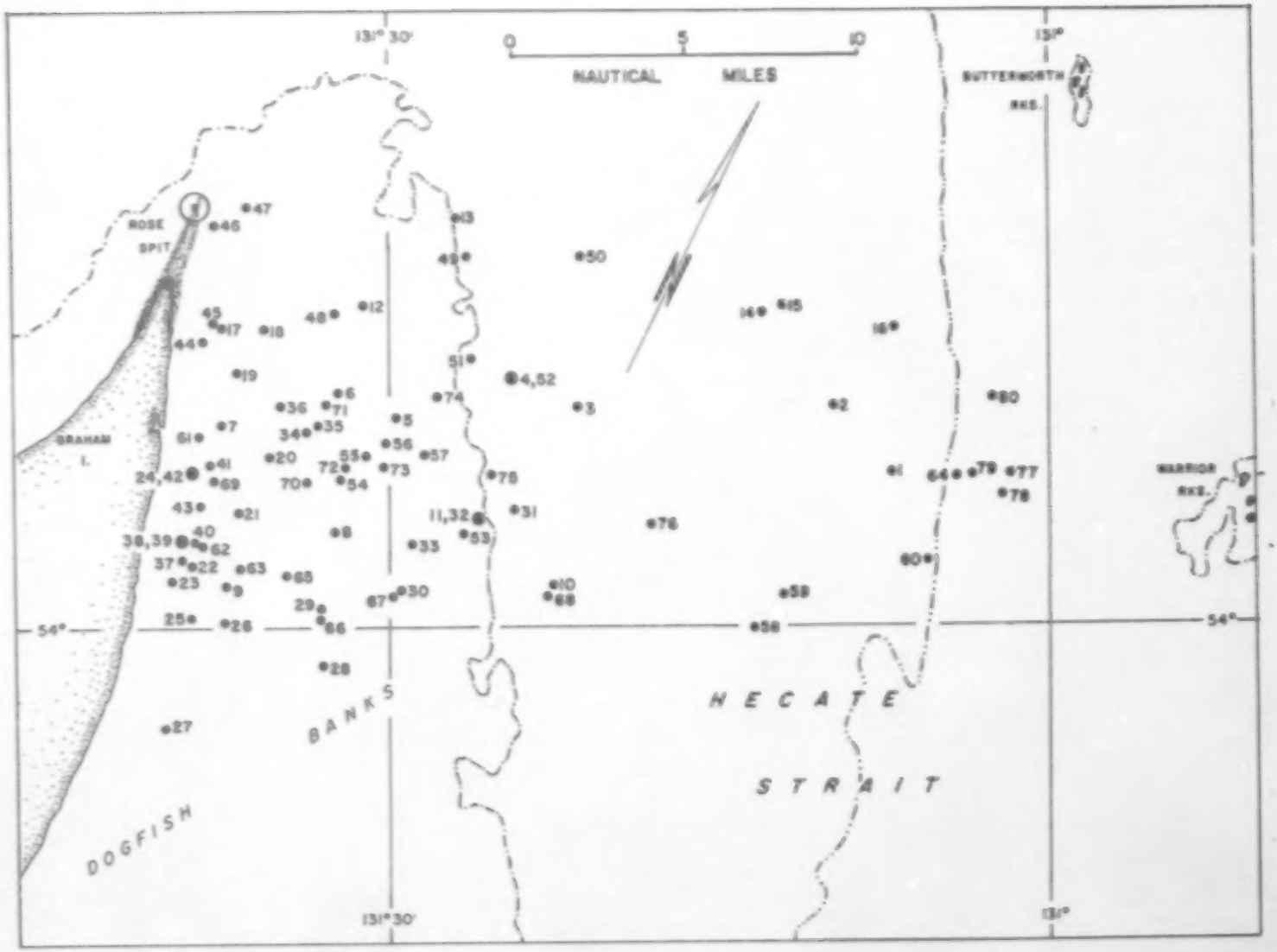


Fig. 2a. Haul locations in northern Hecate Strait for ARCTIC HARVESTER, June 1978.

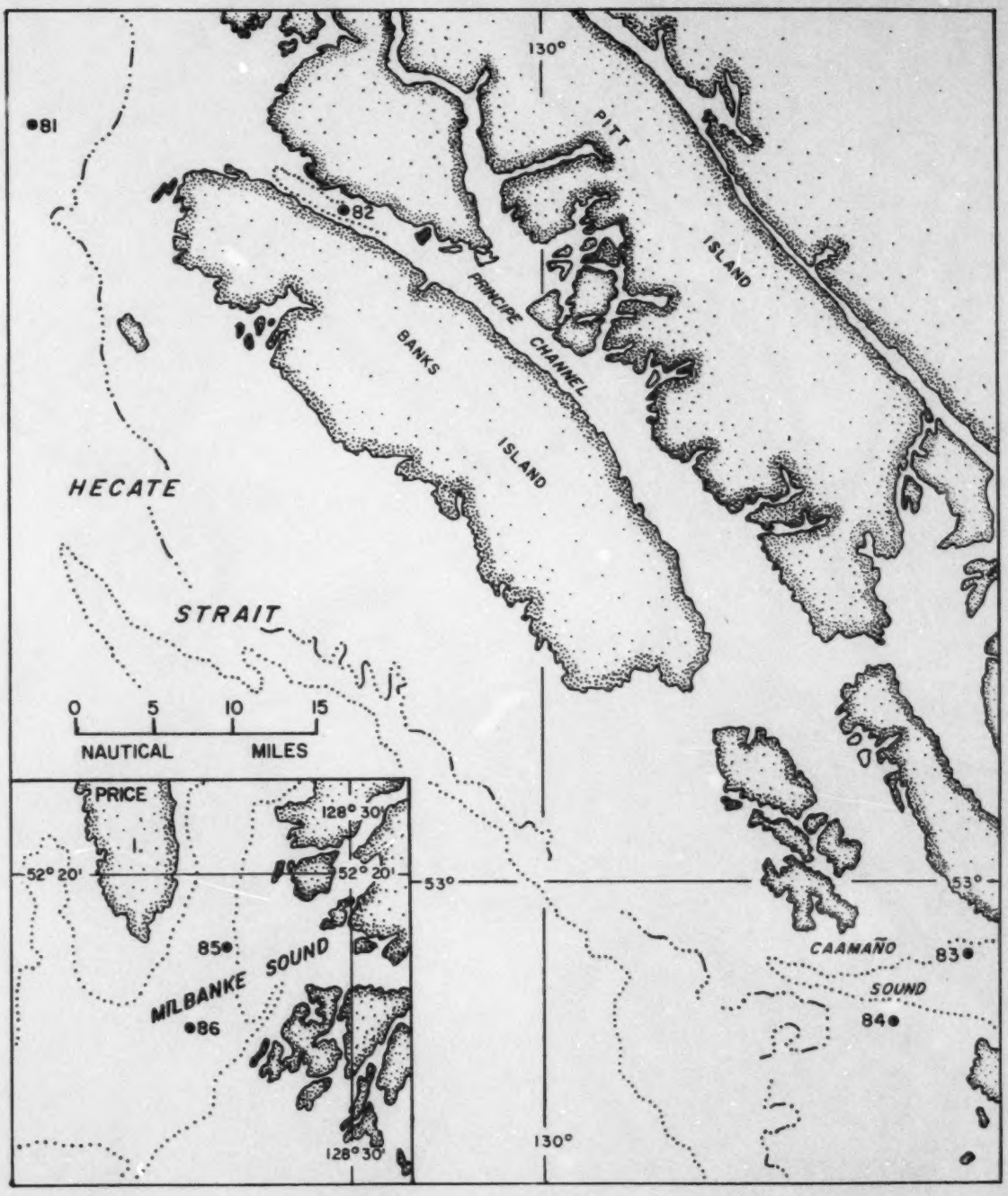


Fig. 2b. Haul locations in eastern Hecate Strait for ARCTIC HARVESTER, June 1978.

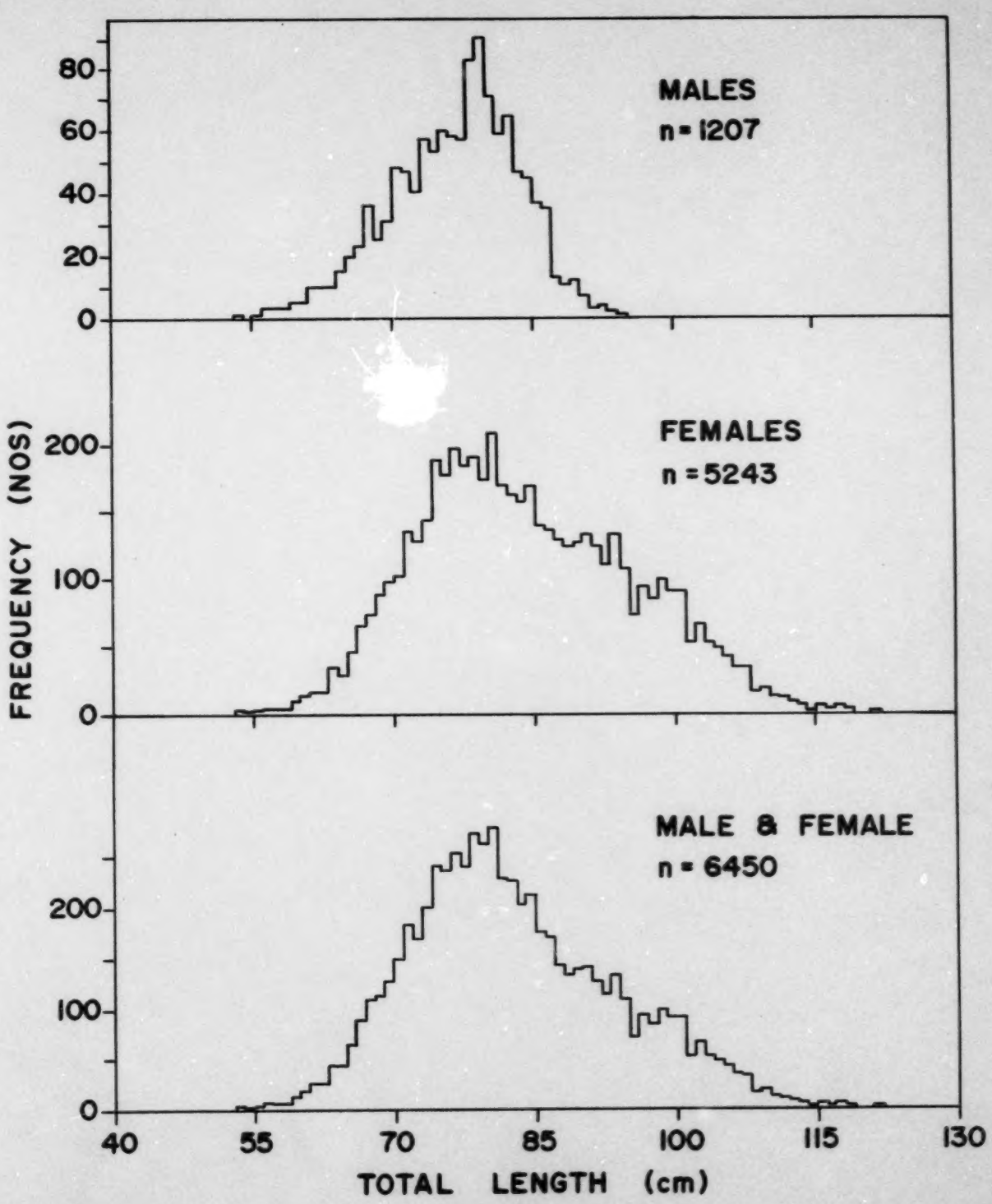


Fig. 3. Length frequency of dogfish, ARCTIC HARVESTER cruise, August 1977.

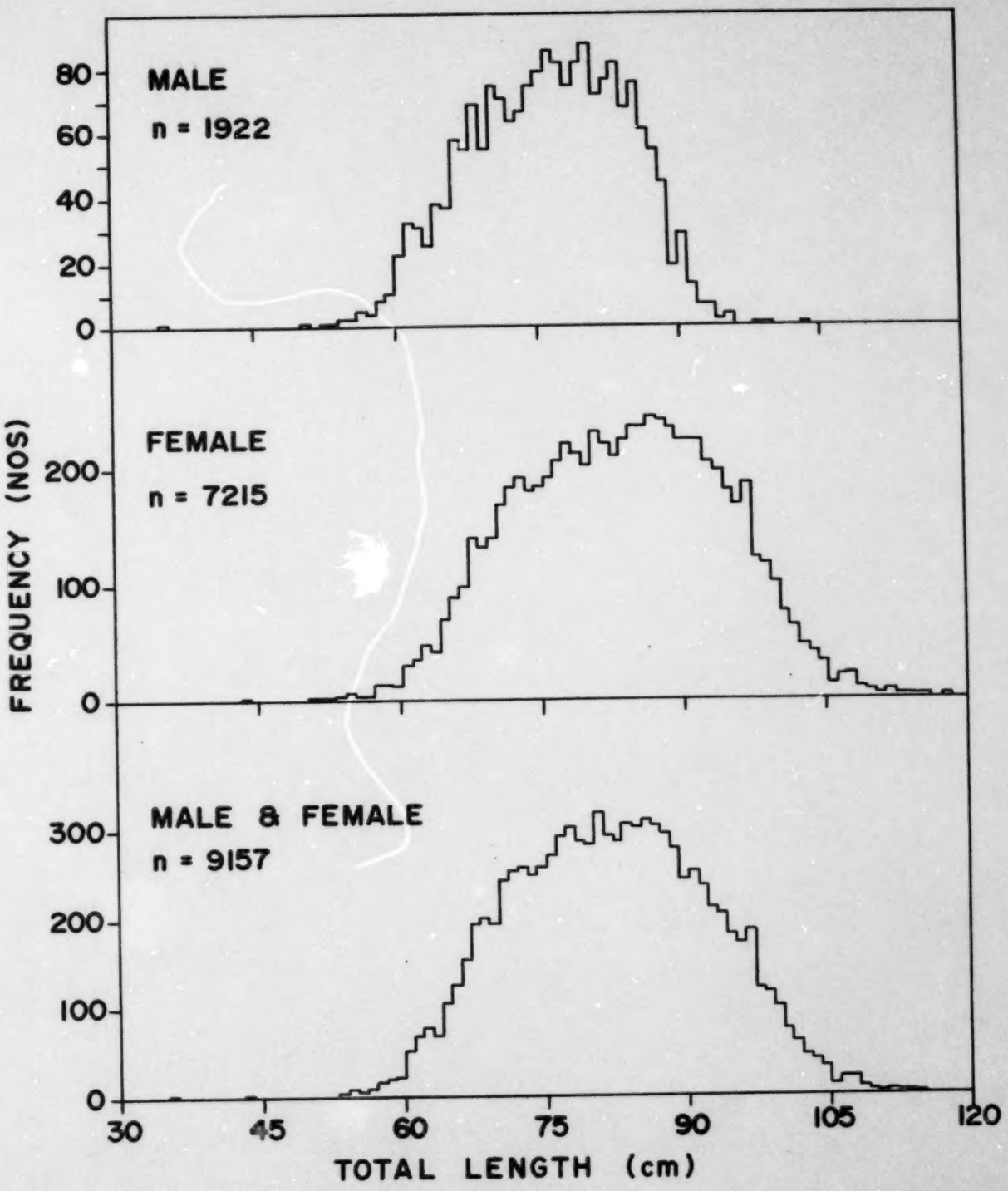
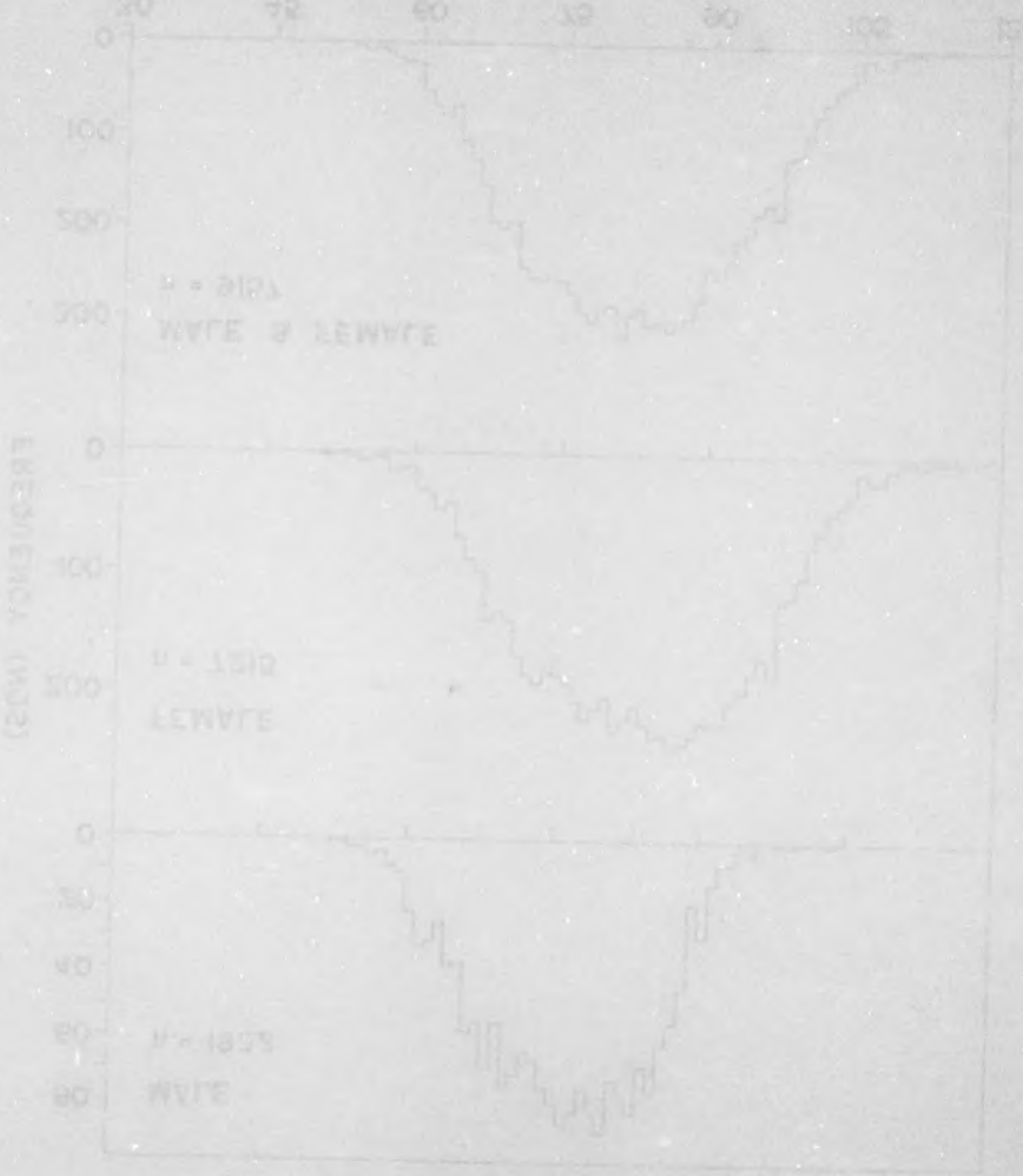


Fig. 4. Length frequency of dogfish, ARCTIC HARVESTER cruise, June 1978.



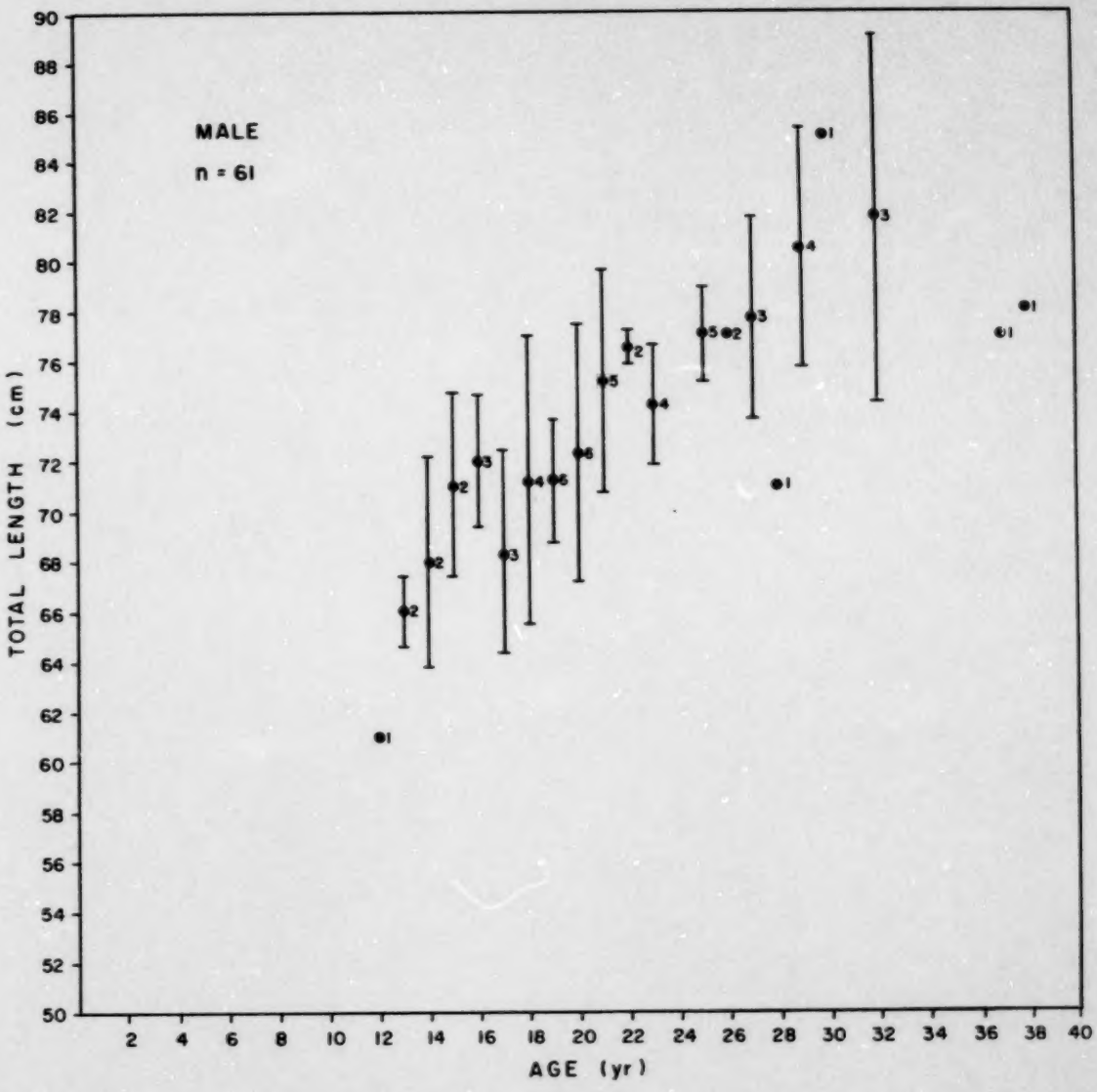


Fig. 5a. Mean length at age for male dogfish, set 9, ARCTIC HARVESTER cruise, August 1977.

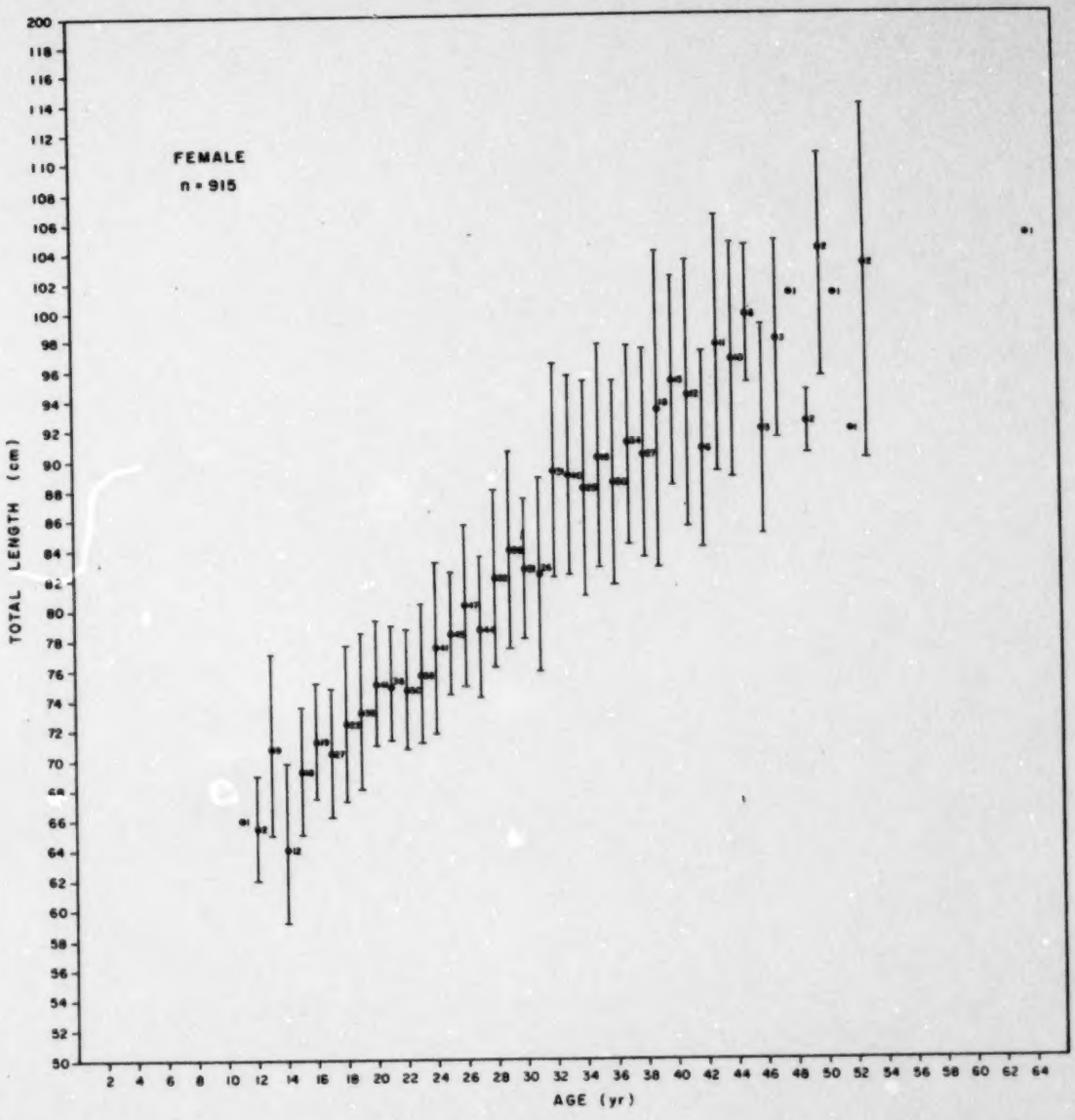


Fig. 5b. Mean length at age for female dogfish, set 9, ARCTIC HARVESTER cruise, August 1977.

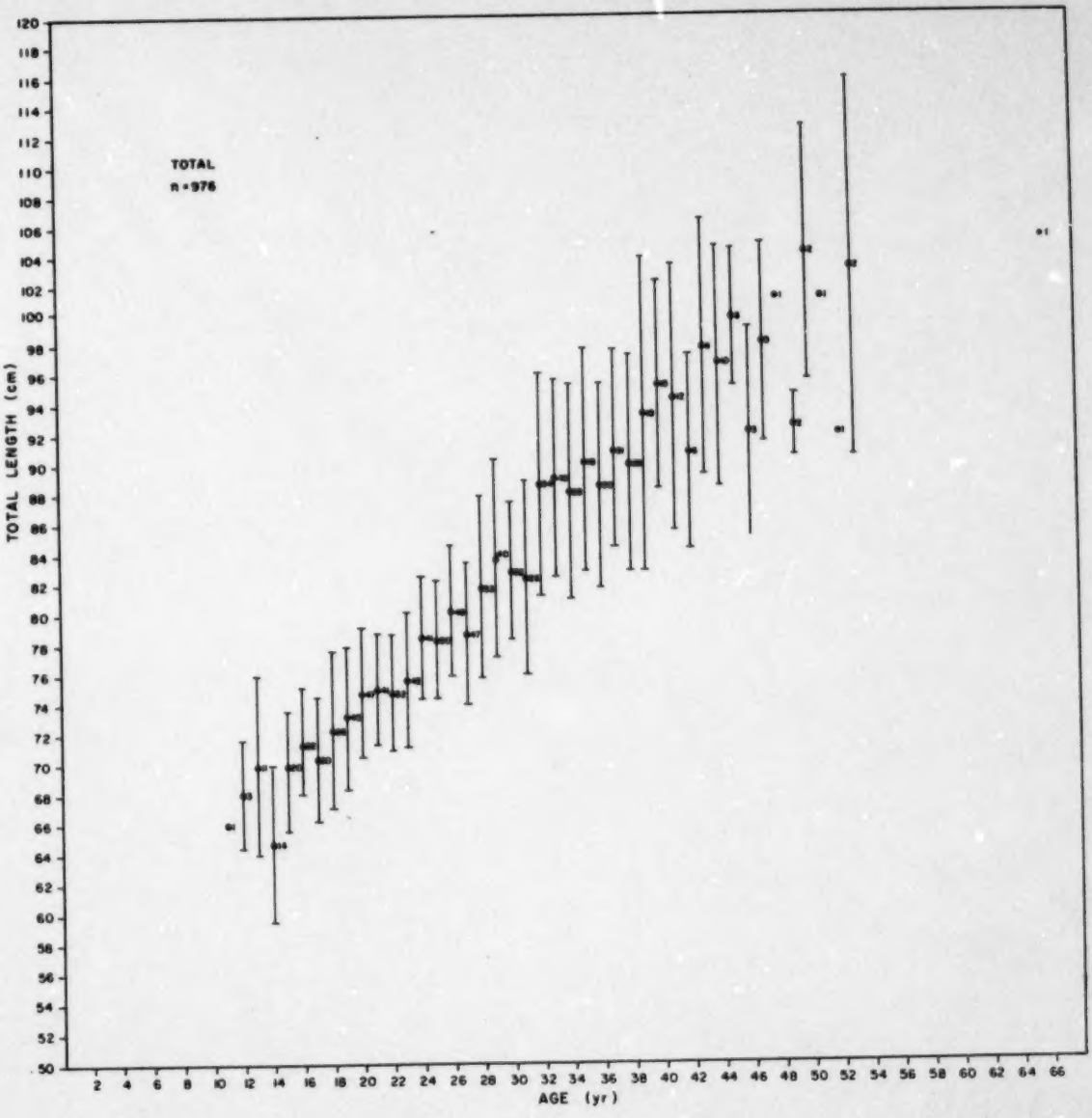


Fig. 5c. Mean length at age for male and female dogfish combined, set 9, ARCTIC HARVESTER cruise, August 1977.

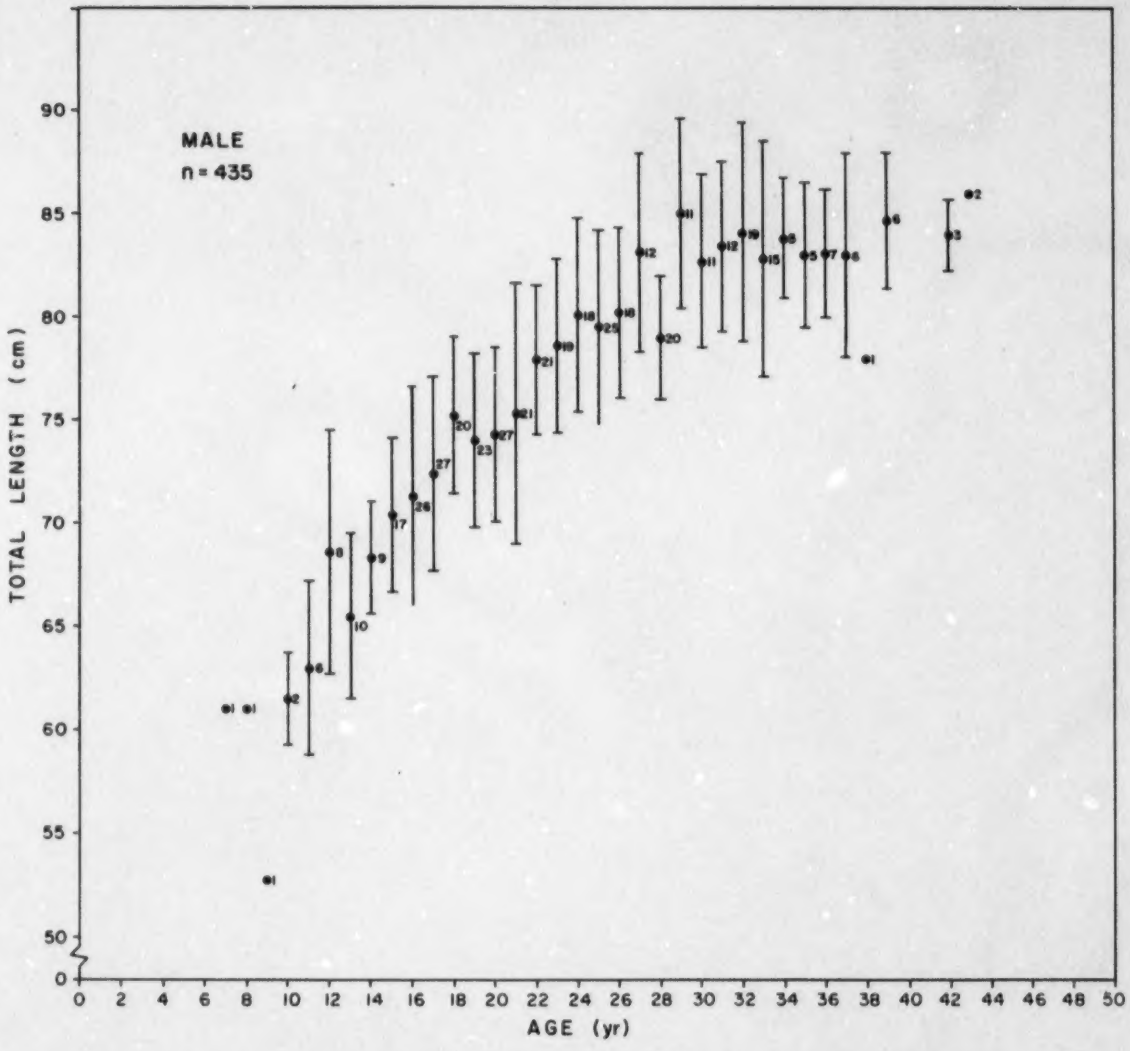


Fig. 6a. Mean length at age for male dogfish, set 8, ARCTIC HARVESTER, June 1978.

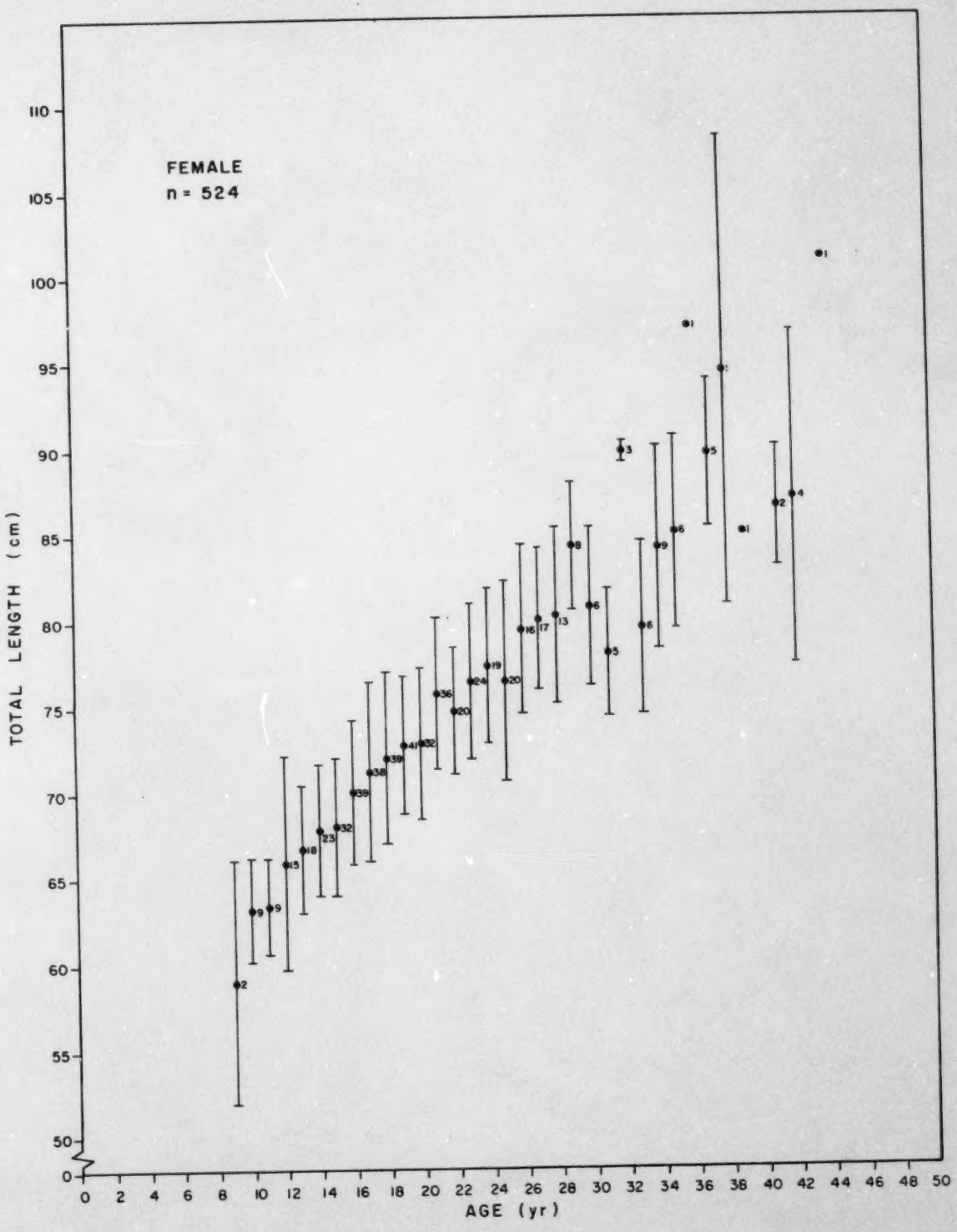


Fig. 6b. Mean length at age for female dogfish, set 8, ARCTIC HARVESTER, June 1978.

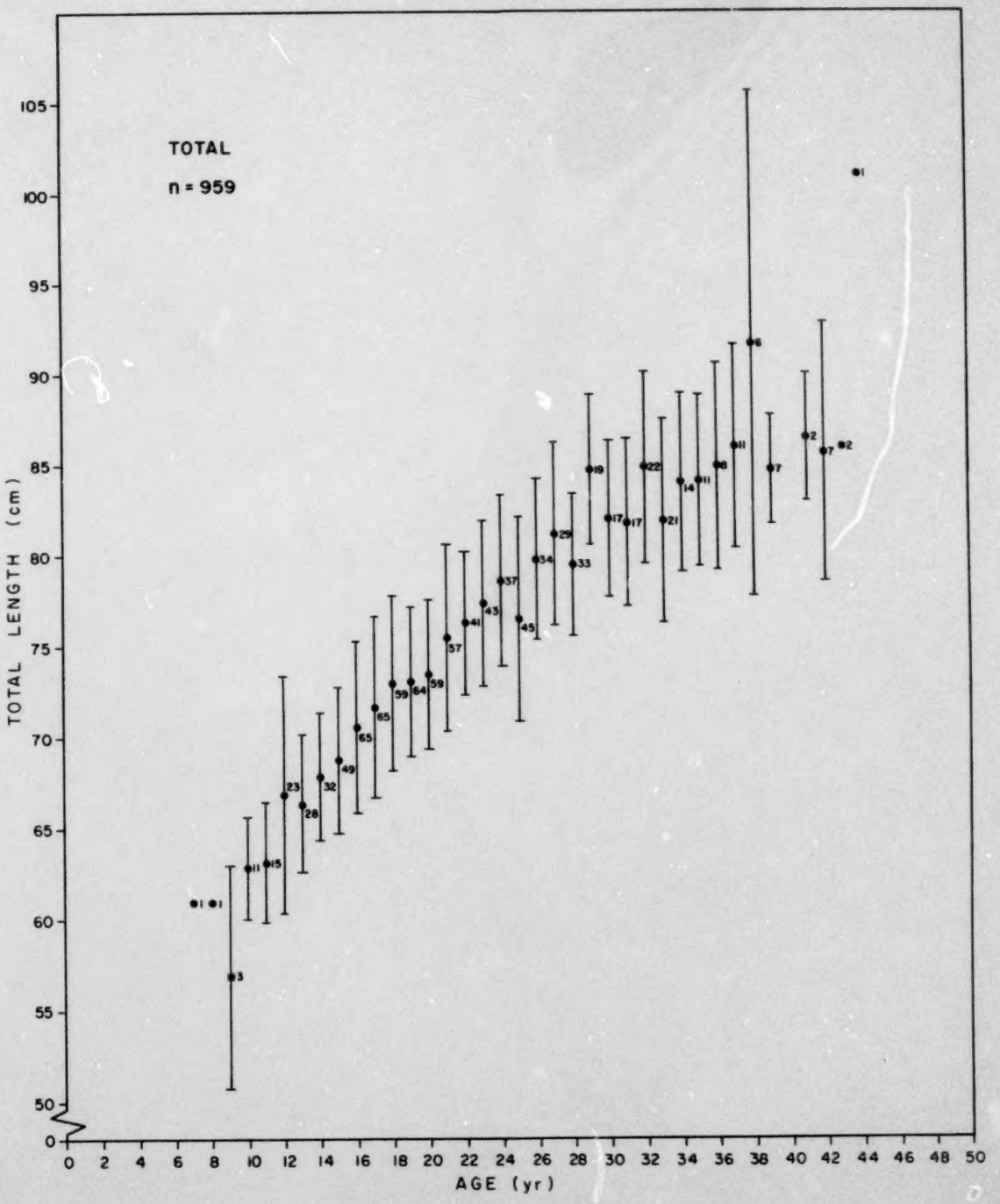


Fig. 6c. Mean length at age for male and female dogfish combined, set 8, ARCTIC HARVESTER, June 1978.

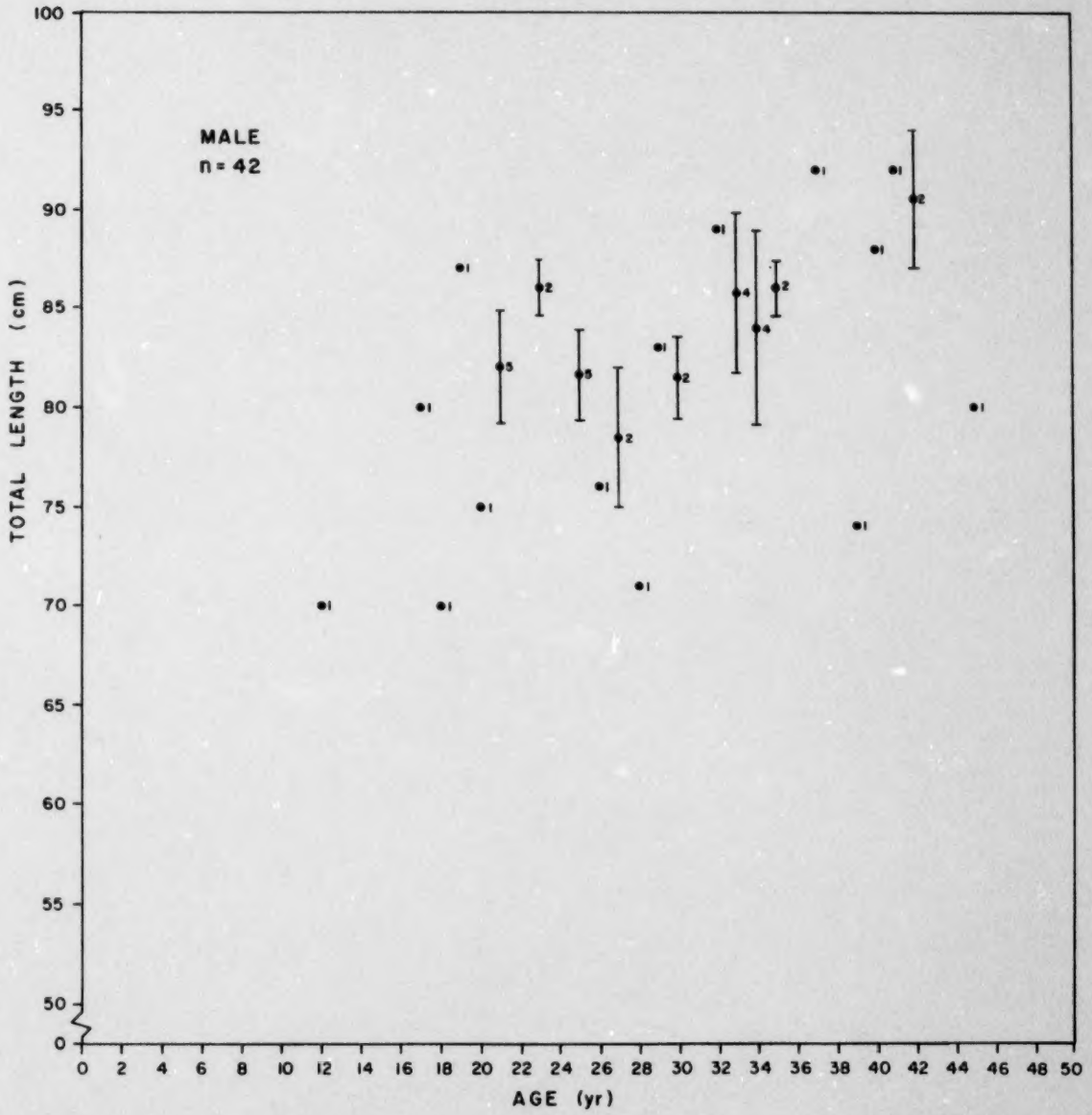


Fig. 7a. Mean length at age for male dogfish, set 69, ARCTIC HARVESTER, June 1978.

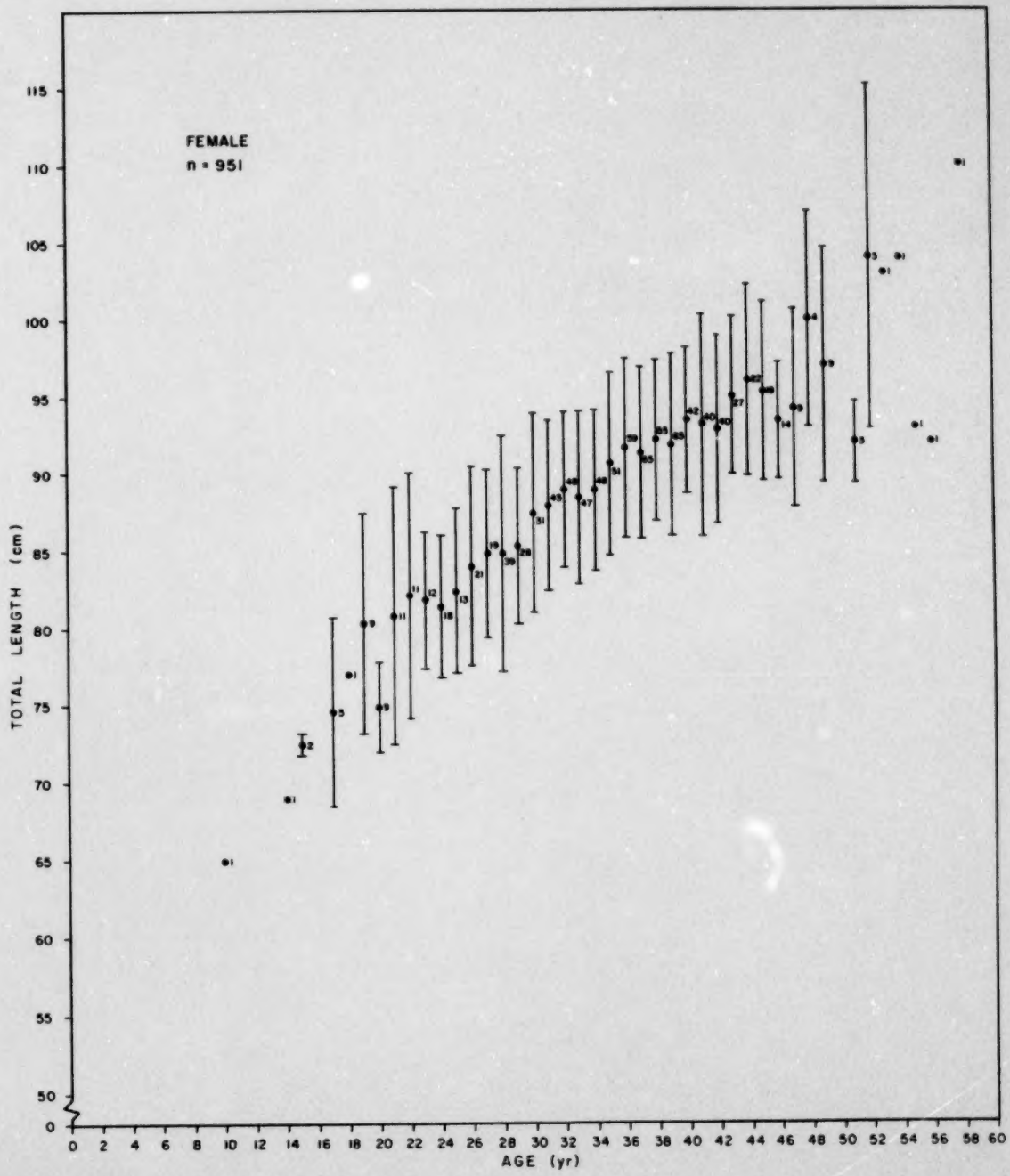


Fig. 7b. Mean length at age for female dogfish, set 69, ARCTIC HARVESTER, June 1978.

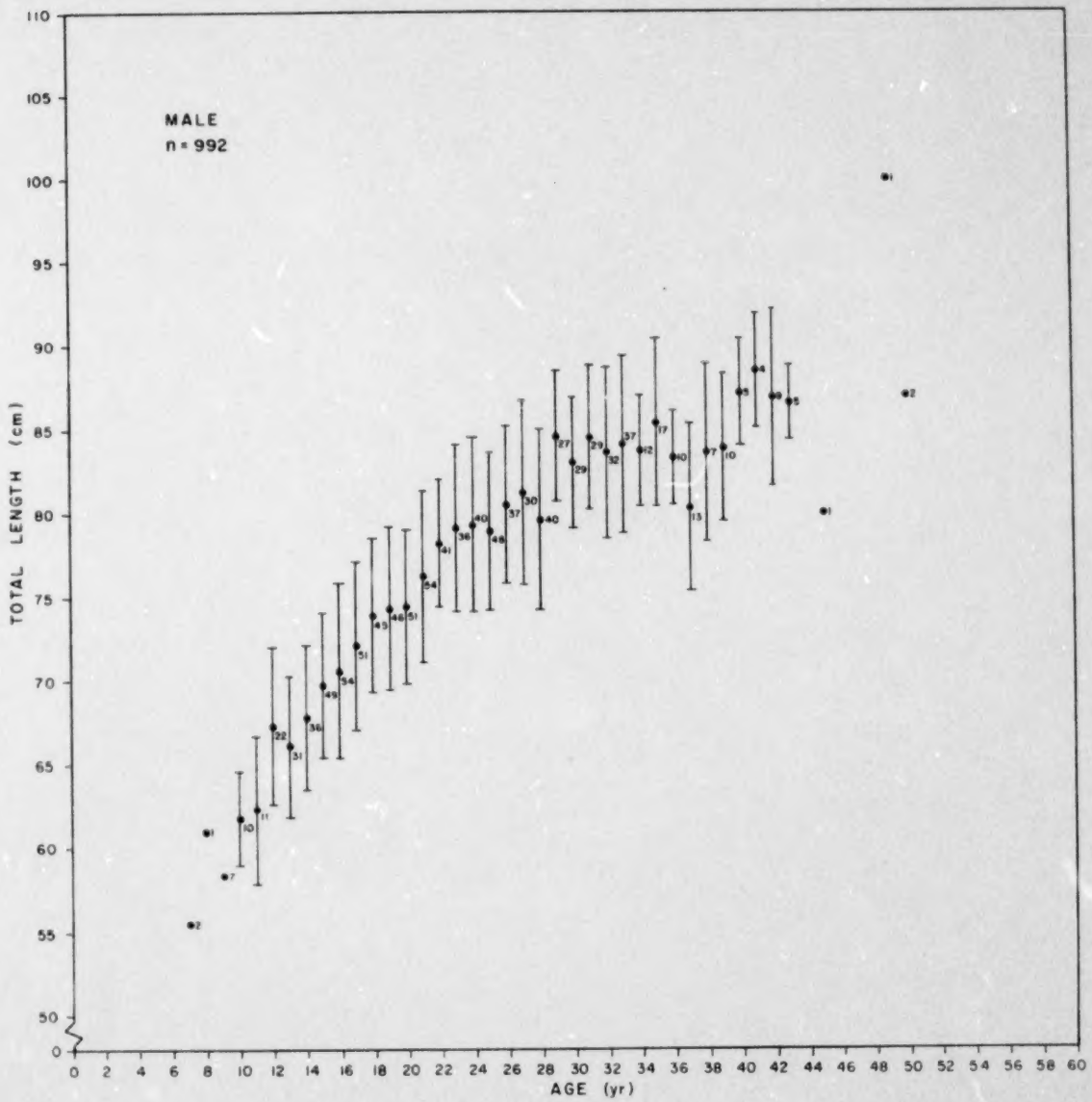


Fig. 8a. Mean length at age for male dogfish, all sets combined, ARCTIC HARVESTER, June 1978.

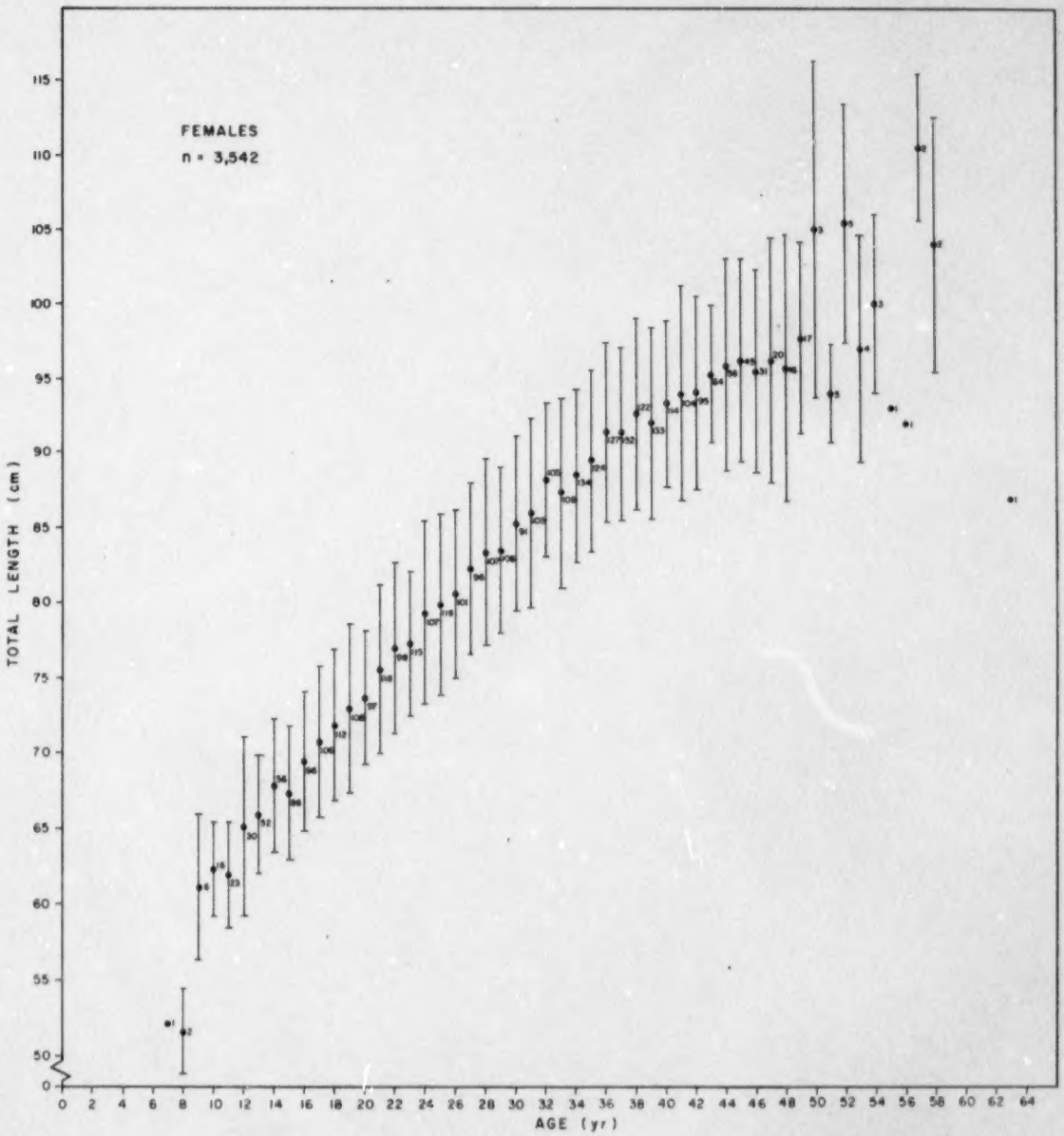


Fig. 8b. Mean length at age for female dogfish all sets combined, ARCTIC HARVESTER, June 1978.

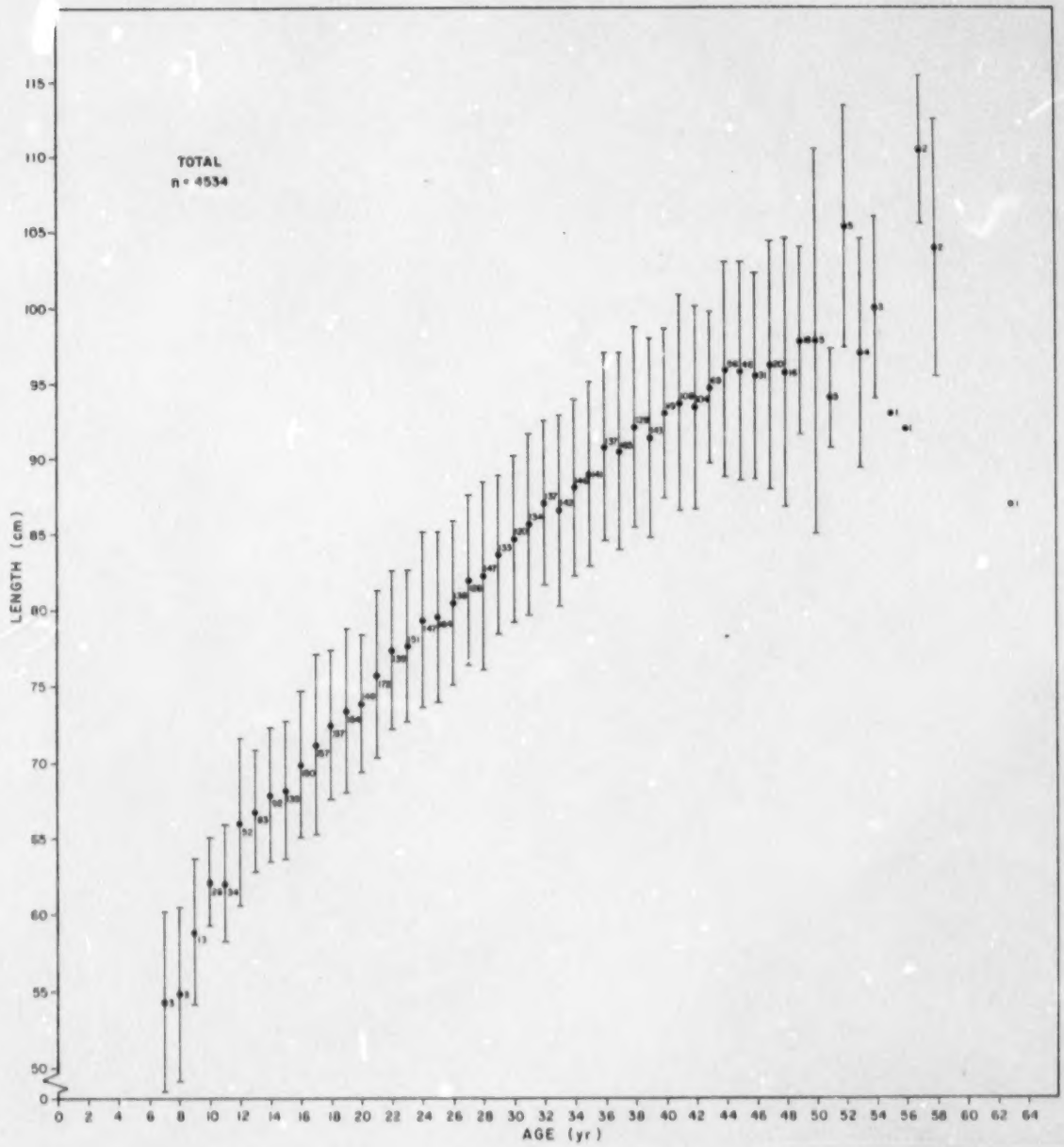


Fig. 8c. Mean length at age for male and female dogfish, all sets combined, ARCTIC HARVESTER, June 1978.

Appendix table 1. Set information, ARCTIC HARVESTER, August 1977.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 11 SET/HAUL NO. 1

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 3.9' Long. 131° 4.9'

END: Lat. 54° 3.1' Long. 131° 7.0'

GEAR: West coast flat trawl START TIME (PDT) : 0953 DURATION (min): 30

BOTTOM DEPTH (m): Start: 45 End: 29 Est. Av. Depth: 32

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 187 SPEED kn: 4.1 DISTANCE TRAVELLED mi. 2.1

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: light RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 11 SET/HAUL NO. 2

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 4.1' Long. 131° 11.1'

END: Lat. 54° 5.8' Long. 131° 10.5'

GEAR: West coast flat trawl START TIME: (PDT) : 1005 DURATION (min): 30

BOTTOM DEPTH (m): Start: 29 End: 34 Est. Av. Depth: 34

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 023 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 1.8

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10-15 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m, R.P.M. 680

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 11 SET/HAUL NO. 3

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 6.1' Long. 131° 16.4'

END: Lat. 54° 4.4' Long. 131° 17.1'

GEAR: West coast flat trawl START TIME (PDT) : 1240 DURATION (min): 30

BOTTOM DEPTH (m): Start: 31 End: 29 Est. Av. Depth: 27

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 178 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 1.8

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 11 SET/HAUL NO. 4

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 5.8' Long. 131° 22.1'

END: Lat. 54° 7.2' Long. 131° 22.0'

GEAR: West coast flat trawl START TIME: (PDT) : 1400 DURATION (min): 30

BOTTOM DEPTH (m): Start: 29 End: 22 Est. Av. Depth: 25

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 007 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 1.6

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 11 SET/HAUL NO. 5

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 6.7' Long. 131° 24.3'

END: Lat. 54° 7.2' Long. 131° 24.2'

GEAR: West coast flat trawl START TIME (PDT) : 1637 DURATION (min): 15

BOTTOM DEPTH (m): Start: 22 End: 22 Est. Av. Depth: 22

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 011 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 11 SET/HAUL NO. 6

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 5.8' Long. 131° 27.8'

END: Lat. 54° 6.3' Long. 131° 28.0'

GEAR: West coast flat trawl START TIME: (PDT) : 1814 DURATION (min): 16

BOTTOM DEPTH (m): Start: 17 End: 18 Est. Av. Depth: 17

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 347 SPEED kn: 3.3 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 46 m

SOUNDER SUMMARY: changed sounder roll near end of tow.

Appendix table 1 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 11 SET/HAUL NO. 7

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 5.0' Long. 131° 30.6'

END: Lat. 54° 6.4' Long. 131° 31.1'

GEAR: West coast flat trawl START TIME (PDT) : 1906 DURATION (min): 30

BOTTOM DEPTH (m): Start: 17 End: 18 Est. Av. Depth: 18

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 315 SPEED kn: 3.3 DISTANCE TRAVELLED mi. 1.2

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: _____

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 12 SET/HAUL NO. 8

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 6.6' Long. 131° 38.3'

END: Lat. 54° 5.7' Long. 131° 38.1'

GEAR: West coast flat trawl START TIME: (PDT) : 0915 DURATION (min): 28

BOTTOM DEPTH (m): Start: 11 End: 14 Est. Av. Depth: 13

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 187 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 1.0

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 46 m. Warp jumping in blocks, lifted early - boulders in net, net torn.

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 12 SET/HAUL NO. 9

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 2.3' Long. 131° 32.9'

END: Lat. 54° 0.3' Long. 131° 32.9'

GEAR: West coast flat trawl START TIME (PDT) : 1100 DURATION (min): 30

BOTTOM DEPTH (m): Start: 16 End: 18 Est. Av. Depth: 17

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 166 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 2.0

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m

SOUNDER SUMMARY:

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 12 SET/HAUL NO. 10

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 1.4' Long. 131° 37.1'

END: Lat. 54° 2.0' Long. 131° 37.2'

GEAR: West coast flat trawl START TIME: (PDT) : 1355 DURATION (min): 11

BOTTOM DEPTH (m): Start: 14 End: 16 Est. Av. Depth: 15

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 353 SPEED kn: 2.8 DISTANCE TRAVELLED mi. 0.5

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m. Lifted because of crab traps.

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 12 SET/HAUL NO. 11

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 3.7' Long. 131° 26.0'

END: Lat. 54° 2.6' Long. 131° 25.7'

GEAR: West coast flat trawl START TIME (PDT) : 1449 DURATION (min): 15

BOTTOM DEPTH (m): Start: 24 End: 23 Est. Av. Depth: 22

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 182 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 1.0

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 12 SET/HAUL NO. 12

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 2.1' Long. 131° 21.7'

END: Lat. 54° 2.8' Long. 131° 22.0'

GEAR: West coast flat trawl START TIME: (PDT) : 1552 DURATION (min): 15

BOTTOM DEPTH (m): Start: 26 End: 27 Est. Av. Depth: 26

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 325 SPEED kn: 2.8 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 12 SET/HAUL NO. 13

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 1.3' Long. 131° 15.2'

END: Lat. 54° 4.5' Long. 131° 17.1'

GEAR: Diamond 5 START TIME (PDT) : 1845 DURATION (min): 60

BOTTOM DEPTH (m): Start: 25 End: 27 Est. Av. Depth: 25

NET DEPTH RANGE m: 5-11 (headline) Est. Av. Depth: 6

DIRECTION OF SET °true: 350 SPEED kn: 4.7 DISTANCE TRAVELLED mi. 4.4

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m. Net opening 7 m.

SOUNDER SUMMARY:

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 13 SET/HAUL NO. 14

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 8.7' Long. 131° 31.8'

END: Lat. 54° 9.2' Long. 131° 31.1'

GEAR: West coast flat trawl START TIME: (PDT) : 0823 DURATION (min): 15

BOTTOM DEPTH (m): Start: 18 End: 19 Est. Av. Depth: 18

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 353 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS:

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 13 SET/HAUL NO. 15

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 9.6' Long. 131° 26.8'

END: Lat. 54° 7.8' Long. 131° 26.0'

GEAR: West coast flat trawl START TIME (PDT) : 0940 DURATION (min): 16

BOTTOM DEPTH (m): Start: 24 End: 24 Est. Av. Depth: 23

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 150 SPEED kn: 3.2 DISTANCE TRAVELLED mi. 1.8

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m. Bottom slightly uneven at start, flattended later.

SOUNDER SUMMARY:

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 13 SET/HAUL NO. 16

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 8.5' Long. 131° 21.0'

END: Lat. 54° 8.9' Long. 131° 21.3'

GEAR: West coast flat trawl START TIME: (PDT) : 1035 DURATION (min): 18

BOTTOM DEPTH (m): Start: 26 End: 24 Est. Av. Depth: 24

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 350 SPEED kn: 3.2 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m, level bottom.

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 13 SET/HAUL NO. 17

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 8.7' Long. 131° 12.2'

END: Lat. 54° 8.1' Long. 131° 12.0'

GEAR: West coast flat trawl START TIME (PDT) : 1210 DURATION (min): 15

BOTTOM DEPTH (m): Start: 29 End: 30 Est. Av. Depth: 30

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 180 SPEED kn: 2.4 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 137 m

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 13 SET/HAUL NO. 18

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 7.8' Long. 131° 7.0'

END: Lat. 54° 9.5' Long. 131° 7.5'

GEAR: West coast flat trawl START TIME: (PDT) : 1307 DURATION (min): 15

BOTTOM DEPTH (m): Start: 33 End: 33 Est. Av. Depth: 32

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 350 SPEED kn: 2.9 DISTANCE TRAVELLED mi. 1.9

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T.H.B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 14 SET/HAUL NO. 19

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 9.0' Long. 131° 37.3'

END: Lat. 54° 8.2' Long. 131° 37.3'

GEAR: 40' Gulf START TIME (PDT) : 0900 DURATION (min): 16

BOTTOM DEPTH (m): Start: 11.0 End: 12.8 Est. Av. Depth:

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 185 SPEED kn: 3.3 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 10 RECORDER:

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 47.5 m, and 54.9 m sweeps.

SOUNDER SUMMARY:

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 14 SET/HAUL NO. 20

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 8.7' Long. 131° 35.8'

END: Lat. 54° 8.4' Long. 131° 35.5'

GEAR: 40' Gulf START TIME: (PDT) : 0937 DURATION (min): 15

BOTTOM DEPTH (m): Start: 16.5 End: 16.5 Est. Av. Depth:

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 009 SPEED kn: 3.3 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 45.7 m and 54.9 m sweeps.

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 14 SET/HAUL NO. 21

LOCATION: Fife Pt. AREA: Hecate Strait

START: Lat. 54° 6.5' Long. 131° 37.1'

END: Lat. 54° 6.2' Long. 131° 37.0'

GEAR: 40' Gulf START TIME (PDT) : 1056 DURATION (min): 15

BOTTOM DEPTH (m): Start: 6.5 End: 16.5 Est. Av. Depth:

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 185 SPEED kn: 2.4 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: R. C.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m, and 55 m sweeps.

SOUNDER SUMMARY:

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 14 SET/HAUL NO. 22

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 4.7' Long. 131° 35.0'

END: Lat. 54° 5.7' Long. 131° 34.4'

GEAR: 40' Gulf START TIME: (PDT) : 1227 DURATION (min): 15

BOTTOM DEPTH (m): Start: 18.3 End: 18.3 Est. Av. Depth:

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 006 SPEED kn: 2.8 DISTANCE TRAVELLED mi. 1.1

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: R. C.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps.

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 14 SET/HAUL NO. 23

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 3.6' Long. 131° 36.6'

END: Lat. 54° 3.3' Long. 131° 36.6'

GEAR: 40' Gulf START TIME (PDT) : 1327 DURATION (min): 4

BOTTOM DEPTH (m): Start: 19 End: _____ Est. Av. Depth: _____

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 195 SPEED kn: 2.9 DISTANCE TRAVELLED mi. 0.3

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 55 m sweeps

SOUNDER SUMMARY: Peaks appeared on sounder, lifted net.

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 14 SET/HAUL NO. 24

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 2.9' Long. 131° 36.6'

END: Lat. 54° 2.2' Long. 131° 37.6'

GEAR: 40' Gulf START TIME: (PDT) : 1350 DURATION (min): 15

BOTTOM DEPTH (m): Start: 16 End: 19 Est. Av. Depth: 17

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 195 SPEED kn: 2.9 DISTANCE TRAVELLED mi. 0.9

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 46 m and 55 m sweeps.

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 14 SET/HAUL NO. 25

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 2.1' Long. 131° 39.3'

END: Lat. 54° 1.1' Long. 131° 39.5'

GEAR: 40' Gulf START TIME (PDT) : 1432 DURATION (min): 15

BOTTOM DEPTH (m): Start: 15 End: 16 Est. Av. Depth: 14

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 190 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 1.0

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 46 m and 55 m sweeps.

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 14 SET/HAUL NO. 26

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 1.2' Long. 131° 39.8'

END: Lat. 54° 2.1' Long. 131° 39.1'

GEAR: 40' Gulf START TIME: (PDT) : 1546 DURATION (min): 15

BOTTOM DEPTH (m): Start: 14 End: 13 Est. Av. Depth: 13

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 015 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 1.0

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 46 m and 55 m sweeps. Repeat of tow 25 with gear adjustments.

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 14 SET/HAUL NO. 27

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 2.0' Long. 131° 40.1'

END: Lat. 54° 2.6' Long. 131° 39.8'

GEAR: 40' Gulf START TIME (PDT) : 1636 DURATION (min): 15

BOTTOM DEPTH (m): Start: 11 End: 12 Est. Av. Depth: 12

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 010 SPEED kn: 2.5 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps. Towing outside crab trap line.

SOUNDER SUMMARY:

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 14 SET/HAUL NO. 28

LOCATION: 54° 00' line AREA: Hecate Strait

START: Lat. 54° 0.8' Long. 131° 37.4'

END: Lat. 54° 0.2' Long. 131° 37.5'

GEAR: 40' Gulf START TIME: (PDT) : 1805 DURATION (min): 15

BOTTOM DEPTH (m): Start: 15 End: 13 Est. Av. Depth: 13

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 190 SPEED kn: 2.8 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps.

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 15 SET/HAUL NO. 29

LOCATION: 54° 00' line AREA: Hecate Strait

START: Lat. 54° 00.0' Long. 131° 39.6'

END: Lat. 53° 59.2' Long. 131° 40.0'

GEAR: 40' Gulf START TIME (PDT) : 0805 DURATION (min): 15

BOTTOM DEPTH (m): Start: 9 End: 8 Est. Av. Depth: 8

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 175 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.9

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps.

SOUNDER SUMMARY: sounder showed harder bottom during last half of tow.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 15 SET/HAUL NO. 30

LOCATION: 54° 00' line AREA: Hecate Strait

START: Lat. 54° 0.2' Long. 131° 37.5'

END: Lat. 54° 0.8' Long. 131° 37.4'

GEAR: 40' Gulf START TIME: (PDT) : 0856 DURATION (min): 28

BOTTOM DEPTH (m): Start: 14 End: 16 Est. Av. Depth: 15

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 010 SPEED kn: 2.8 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps. Repeat of tow 28.

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 15 SET/HAUL NO. 31

LOCATION: Oeanda River line AREA: Hecate Strait

START: Lat. 53° 56.7' Long. 131° 40.3'

END: Lat. 53° 57.7' Long. 131° 39.7'

GEAR: 40' Gulf START TIME (PDT) : 1048 DURATION (min): 15

BOTTOM DEPTH (m): Start: 15 End: 16 Est. Av. Depth: 16

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 010 SPEED kn: 25 DISTANCE TRAVELLED mi. 1.2

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS:

SOUNDER SUMMARY:

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 15 SET/HAUL NO. 32

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 0.4' Long. 131° 33.2'

END: Lat. 54° 1.0' Long. 131° 32.8'

GEAR: 40' Gulf START TIME: (PDT) : 1305 DURATION (min): 15

BOTTOM DEPTH (m): Start: 18 End: 18 Est. Av. Depth: 18

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 020 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps. Repeat of tow 9, made with groundfish trawl.

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 15 SET/HAUL NO. 33

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 2.7' Long. 131° 26.2'

END: Lat. 54° 2.2' Long. 131° 26.9'

GEAR: 40' Gulf START TIME (PDT) : 1434 DURATION (min): 15

BOTTOM DEPTH (m): Start: 19 End: 19 Est. Av. Depth: 20

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 170 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps. Repeat of tow 11, made with groundfish trawl.

SOUNDER SUMMARY:

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 15 SET/HAUL NO. 34

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 7.0' Long. 131° 26.1'

END: Lat. 54° 6.4' Long. 131° 25.4'

GEAR: 40' Gulf START TIME: (PDT) : 1540 DURATION (min): 15

BOTTOM DEPTH (m): Start: 26 End: 26 Est. Av. Depth: 25

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 160 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps. Repeat of tow 5, made with groundfish trawl.

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 15 SET/HAUL NO. 35

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 2.4' Long. 131° 39.2'

END: Lat. 54° 1.8' Long. 131° 39.2'

GEAR: West coast flat trawl START TIME (PDT) : 1747 DURATION (min): 15

BOTTOM DEPTH (m): Start: 12 End: 11 Est. Av. Depth: 9

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 200 SPEED kn: 3.2 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m. Repeat of tow 26, made with shrimp trawl.

SOUNDER SUMMARY: Undulating bottom

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 15 SET/HAUL NO. 36

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 1.6' Long. 131° 39.6'

END: Lat. 54° 1.9' Long. 131° 39.6'

GEAR: West coast flat trawl START TIME: (PDT) : 1830 DURATION (min): 15

BOTTOM DEPTH (m): Start: 13 End: 12 Est. Av. Depth: 11

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 010 SPEED kn: 2.7 DISTANCE TRAVELLED mi. 0.3

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 20

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Towed between tow 35 and 27 (Aug. 14).

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 16 SET/HAUL NO. 37

LOCATION: 54° 00' line AREA: Hecate Strait

START: Lat. 54° 1.0' Long. 131° 37.0'

END: Lat. 54° 0.5' Long. 131° 37.0'

GEAR: West coast flat trawl START TIME (PDT) : 0809 DURATION (min): 15

BOTTOM DEPTH (m): Start: 16 End: 13 Est. Av. Depth: 14

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 190 SPEED kn: 3.2 DISTANCE TRAVELLED mi. 0.5

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 16 SET/HAUL NO. 38

LOCATION: 54° 00' line AREA: Hecate Strait

START: Lat. 53° 59.9' Long. 131° 33.3'

END: Lat. 53° 58.8' Long. 131° 33.3'

GEAR: West coast flat trawl START TIME: (PDT) : 0900 DURATION (min): 17

BOTTOM DEPTH (m): Start: 12 End: 11 Est. Av. Depth: 12

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 190 SPEED kn: 3.3 DISTANCE TRAVELLED mi. 1.1

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 16 SET/HAUL NO. 39

LOCATION: 54° 00' line AREA: Hecate Strait

START: Lat. 54° 00.0' Long. 131° 29.8'

END: Lat. 54° 00.9' Long. 131° 29.2'

GEAR: West coast flat trawl START TIME (PDT) : 0957 DURATION (min): 15

BOTTOM DEPTH (m): Start: 17 End: 15 Est. Av. Depth: 15

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 340 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 0.9

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 30 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m

SOUNDER SUMMARY:

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 16 SET/HAUL NO. 40

LOCATION: 54° 00' line AREA: Hecate Strait

START: Lat. 54° 00.0' Long. 131° 23.8'

END: Lat. 53° 58.9' Long. 131° 24.2'

GEAR: West coast flat trawl START TIME: (PDT) : 1058 DURATION (min): 15

BOTTOM DEPTH (m): Start: 22 End: 20 Est. Av. Depth: 20

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 190 SPEED kn: 2.8 DISTANCE TRAVELLED mi. 1.2

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 16 SET/HAUL NO. 41

LOCATION: 54° 00' line AREA: Hecate Strait

START: Lat. 55° 59.6' Long. 131° 19.2'

END: Lat. 54° 00.8' Long. 131° 19.1'

GEAR: 40' Gulf START TIME (PDT) : 1544 DURATION (min):

BOTTOM DEPTH (m): Start: 31 End: 28 Est. Av. Depth: 27

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 350 SPEED kn: 2.9 DISTANCE TRAVELLED mi. 1.2

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m

SOUNDER SUMMARY:

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 16 SET/HAUL NO. 42

LOCATION: 54° 00' line AREA: Hecate Strait

START: Lat. 54° 00.0' Long. 131° 13.5'

END: Lat. 53° 59.2' Long. 131° 13.6'

GEAR: 40' Gulf START TIME: (PDT) : 1850 DURATION (min): 15

BOTTOM DEPTH (m): Start: 33 End: 37 Est. Av. Depth: 35

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 190 SPEED kn: 3.5 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 16 SET/HAUL NO. 43

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 02.8' Long. 131° 06.9'

END: Lat. 54° 03.7' Long. 131° 07.0'

GEAR: 40' Gulf START TIME (PDT) : 1827 DURATION (min): 15

BOTTOM DEPTH (m): Start: 28 End: 27 Est. Av. Depth: 27

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 350 SPEED kn: 3.4 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m

SOUNDER SUMMARY:

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 17 SET/HAUL NO. 44

LOCATION: N. end Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 04.9' Long. 131° 33.2'

END: Lat. 53° 04.1' Long. 131° 33.5'

GEAR: West coast flat trawl START TIME: (PDT) : 0815 DURATION (min): 15

BOTTOM DEPTH (m): Start: 17 End: 18 Est. Av. Depth: 18

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 190 SPEED kn: 3.5 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m

SOUNDER SUMMARY:

. Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 17 SET/HAUL NO. 45

LOCATION: N. end Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 3.8' Long. 131° 32.0'

END: Lat. 54° 4.9' Long. 131° 32.2'

GEAR: West coast flat trawl START TIME (PDT) : 0925 DURATION (min): 15

BOTTOM DEPTH (m): Start: 16 End: 15 Est. Av. Depth: 16

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 350 SPEED kn: 3.6 DISTANCE TRAVELLED mi. 1.1

SET ON: _____ WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 17 SET/HAUL NO. 46

LOCATION: N. end Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 3.9' Long. 131° 30.2'

END: Lat. 54° 2.8' Long. 131° 30.8'

GEAR: West coast flat trawl START TIME: (PDT) : 1013 DURATION (min): 15

BOTTOM DEPTH (m): Start: 13 End: 13 Est. Av. Depth: 12

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 190 SPEED kn: 3.4 DISTANCE TRAVELLED mi. 1.2

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA:

REMARKS: _____

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 17 SET/HAUL NO. 47

LOCATION: N. end Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 2.4' Long. 131° 28.6'

END: Lat. 54° 3.4' Long. 131° 27.8'

GEAR: West coast flat trawl START TIME (PDT) : 1108 DURATION (min): 15

BOTTOM DEPTH (m): Start: 11 End: 10 Est. Av. Depth: 11

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 350 SPEED kn: 3.6 DISTANCE TRAVELLED mi. 1.2

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 17 SET/HAUL NO. 48

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 05.0' Long. 131° 30.0'

END: Lat. 54° 06.3' Long. 131° 30.2'

GEAR: West coast flat trawl START TIME: (PDT) : 1308 DURATION (min): 21

BOTTOM DEPTH (m): Start: 13 End: 16 Est. Av. Depth: 15

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 000 SPEED kn: _____ DISTANCE TRAVELLED mi. 1.5

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: _____ WIND SPEED: _____ RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 17 SET/HAUL NO. 49

LOCATION: Fife Pt. line AREA: Hecate Strait

START: Lat. 54° 5.3' Long. 131° 33.3'

END: Lat. 54° 6.7' Long. 131° 33.4'

GEAR: West coast flat trawl START TIME (PDT) : 1420 DURATION (min): 15

BOTTOM DEPTH (m): Start: 19 End: 20 Est. Av. Depth: 19

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 000 SPEED kn: 3.6 DISTANCE TRAVELLED mi. 1.5

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 17 SET/HAUL NO. 50

LOCATION: South end Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 3.4' Long. 131° 26.5'

END: Lat. 54° 3.8' Long. 131° 26.6'

GEAR: West coast flat trawl START TIME: (PDT) : 1559 DURATION (min): 13

BOTTOM DEPTH (m): Start: 22 End: 24 Est. Av. Depth: 23

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 000 SPEED kn: 3.3 DISTANCE TRAVELLED mi. 0.3

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 17 SET/HAUL NO. 51

LOCATION: South end Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 3.4' Long. 131° 28.0'

END: Lat. 54° 2.9' Long. 131° 27.2'

GEAR: West coast flat trawl START TIME (PDT) : 1650 DURATION (min):

BOTTOM DEPTH (m): Start: 13 End: 15 Est. Av. Depth: 16

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 150 SPEED kn: 3.9 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m

SOUNDER SUMMARY:

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 17 SET/HAUL NO. 52

LOCATION: South end Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 2.1' Long. 131° 34.4'

END: Lat. 54° 1.5' Long. 131° 34.4'

GEAR: West coast flat trawl START TIME: (PDT) : 1833 DURATION (min): 15

BOTTOM DEPTH (m): Start: 17 End: 17 Est. Av. Depth: 17

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 195 SPEED kn: 3.9 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 91 m

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 18 SET/HAUL NO. 53

LOCATION: Argonaut Hill line AREA: Hecate Strait

START: Lat. 54° 2.6' Long. 131° 39.2'

END: Lat. 54° 3.4' Long. 131° 38.9'

GEAR: 40' Gulf START TIME (PDT) : 0751 DURATION (min): 15

BOTTOM DEPTH (m): Start: 11 End: 13 Est. Av. Depth: 12

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 010 SPEED kn: 2.5 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps.

SOUNDER SUMMARY:

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 18 SET/HAUL NO. 54

LOCATION: Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 2.8' Long. 131° 39.1'

END: Lat. 54° 2.0' Long. 131° 39.2'

GEAR: 40' Gulf START TIME: (PDT) : 0818 DURATION (min): 15

BOTTOM DEPTH (m): Start: 13 End: 10 Est. Av. Depth: 11

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 195 SPEED kn: 2.9 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 18 SET/HAUL NO. 55

LOCATION: Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 2.2' Long. 131° 39.3'

END: Lat. 54° 2.4' Long. 131° 39.2'

GEAR: 40' Gulf START TIME (PDT) : 0913 DURATION (min): 15

BOTTOM DEPTH (m): Start: 11 End: 11 Est. Av. Depth: 11

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 010 SPEED kn: 2.5 DISTANCE TRAVELLED mi. 0.3

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: T. H. B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps. Added 13 ft to head line extensions, removed one float from each wing.

SOUNDER SUMMARY:

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 18 SET/HAUL NO. 56

LOCATION: Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 1.5' Long. 131° 39.6'

END: Lat. 54° 2.5' Long. 131° 39.2'

GEAR: 40' Gulf START TIME: (PDT) : 1033 DURATION (min): 15

BOTTOM DEPTH (m): Start: 10 End: 8 Est. Av. Depth: 9

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 010 SPEED kn: 2.7 DISTANCE TRAVELLED mi. 1.1

SET ON: Pre-determined WATER CONDITION: TIDE:

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T.H.B.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 46 m and 55 m sweeps.

SOUNDER SUMMARY:

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 18 SET/HAUL NO. 57

LOCATION: South of Fife Point AREA: Hecate Strait

START: Lat. 54° 4.2' Long. 131° 38.6'

END: Lat. 54° 4.3' Long. 131° 38.7'

GEAR: 40' Gulf START TIME (PDT) : 1111 DURATION (min): 4

BOTTOM DEPTH (m): Start: 9 End: 10 Est. Av. Depth: 9

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 010 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.2

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: _____ WIND SPEED: _____ RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 46 m and 55 m sweeps. Net hauled back prematurely due to hard bottom.

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 18 SET/HAUL NO. 58

LOCATION: South of Fife Point AREA: Hecate Strait

START: Lat. 54° 4.1' Long. 131° 39.1'

END: Lat. 54° 3.8' Long. 131° 39.2'

GEAR: 40' Gulf START TIME: (PDT) : 1135 DURATION (min): 15

BOTTOM DEPTH (m): Start: 6 End: 6 Est. Av. Depth: 5

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 180 SPEED kn: 2.4 DISTANCE TRAVELLED mi. 0.4

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 18 SET/HAUL NO. 59

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 7.9' Long. 131° 38.0'

END: Lat. 54° 8.4' Long. 131° 37.9'

GEAR: 40' Gulf START TIME (PDT) : 1247 DURATION (min): 7

BOTTOM DEPTH (m): Start: 11 End: 12 Est. Av. Depth: 11

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 010 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.5

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Net hauled back after 7 minutes due to hard bottom.

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 18 SET/HAUL NO. 60

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 7.5' Long. 131° 38.8'

END: Lat. 54° 8.2' Long. 131° 38.6'

GEAR: 40' Gulf START TIME: (PDT) : 1315 DURATION (min): _____

BOTTOM DEPTH (m): Start: 6 End: 11 Est. Av. Depth: 9

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: _____ SPEED kn: 2.7 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 18 SET/HAUL NO. 61

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 10.1' Long. 131° 38.2'

END: Lat. 54° 10.8' Long. 131° 37.6'

GEAR: 40' Gulf START TIME (PDT) : 1440 DURATION (min): 15

BOTTOM DEPTH (m): Start: 7 End: 11 Est. Av. Depth: 9

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 020 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: _____

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 18 SET/HAUL NO. 62

LOCATION: Rose Spit AREA: Hecate Strait

START: Lat. 54° 11.0' Long. 131° 37.3'

END: Lat. 54° 10.8' Long. 131° 37.4'

GEAR: 40' Gulf START TIME: (PDT) : 1509 DURATION (min): 15

BOTTOM DEPTH (m): Start: 11 End: 11 Est. Av. Depth: 11

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 195 SPEED kn: 2.9 DISTANCE TRAVELLED mi. 0.3

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: T. H. B.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: _____

Appendix table 1 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 19 SET/HAUL NO. 63

LOCATION: 9.5 mi. off Wiah Pt. AREA: Dixon Entrance

START: Lat. 54° 16' Long. 132° 08'

END: Lat. 54° 15' Long. 131° 21'

GEAR: Diamond 5 START TIME (PDT) : 2045 DURATION (min): 60

BOTTOM DEPTH (m): Start: 164 End: 164 Est. Av. Depth: 164

NET DEPTH RANGE m: 55-73 m Est. Av. Depth: 58

DIRECTION OF SET °true: 280 SPEED kn: 5.0 DISTANCE TRAVELLED mi. 7.7

SET ON: Pre-determined WATER CONDITION: calm TIDE: strong

WIND DIRECTION: _____ WIND SPEED: _____ RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 181 m. Net opening 9 m.

SOUNDER SUMMARY: Light continuous spotting 90-128 m.

VESSEL: ARCTIC HARVESTER DATE: Yr 77 Mo. 08 Day 20 SET/HAUL NO. 64

LOCATION: 23 mi. N. of Wiah Pt. AREA: Dixon Entrance

START: Lat. 54° 27.0' Long. 132° 17.0'

END: Lat. 54° 28.5' Long. 132° 27.8'

GEAR: Diamond 5 START TIME: (PDT) : 0915 DURATION (min): 45

BOTTOM DEPTH (m): Start: 362 End: 373 Est. Av. Depth: _____

NET DEPTH RANGE m: 27-18 Est. Av. Depth: 22

DIRECTION OF SET °true: 270 SPEED kn: 5.8 DISTANCE TRAVELLED mi. 6.5

SET ON: 18-27 m from surface WATER CONDITION: calm TIDE: _____

WIND DIRECTION: _____ WIND SPEED: 0 RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m. Net open 9.1 m.

SOUNDER SUMMARY: Very light spotting 55 m; medium scattering layer 164 m-250 m; light scattering 250 m to bottom.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 20 SET/HAUL NO. 65

LOCATION: E Learmonth Bank AREA: Dixon Entrance

START: Lat. 54° 27.5' Long. 132° 31.9'

END: Lat. 54° 28.1' Long. 131° 27.2'

GEAR: Diamond 5 START TIME (PDT) : 1047 DURATION (min): 35

BOTTOM DEPTH (m): Start: 369 End: 369 Est. Av. Depth: 369

NET DEPTH RANGE m: 55-46 Est. Av. Depth: 50

DIRECTION OF SET °true: 090 SPEED kn: 4.3 DISTANCE TRAVELLED mi. 2.8

SET ON: 45-65 m WATER CONDITION: calm TIDE:

WIND DIRECTION: WIND SPEED: RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 137 m. Net open 8.0 m.

SOUNDER SUMMARY: Light individual spotting 9 m; medium spotting 45-65 m; light scattering layer 256 m to bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 20 SET/HAUL NO. 66

LOCATION: 24 mi. N. of Virago Sound AREA: Dixon Entrance

START: Lat. 54° 28.6' Long. 132° 31.0'

END: Lat. 54° 30.0' Long. 132° 32.5'

GEAR: Diamond 5 START TIME: (PDT) : 1255 DURATION (min): 30

BOTTOM DEPTH (m): Start: 373 End: 373 Est. Av. Depth: 373

NET DEPTH RANGE m: 32-38 m off bottom Est. Av. Depth: 337

DIRECTION OF SET °true: 275 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 1.7

SET ON: 310-330 m WATER CONDITION: calm TIDE:

WIND DIRECTION: WIND SPEED: 0 RECORDER:

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 823 m. Net open 9 m.

SOUNDER SUMMARY: Very light scattering layer 316-366 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 20 SET/HAUL NO. 67

LOCATION: 12 1/4 mi. E. Cape Muzon AREA: Dixon Entrance

START: Lat. 54° 29.3' Long. 132° 29.6'

END: Lat. 54° 29.6' Long. 131° 27.4'

GEAR: Flat bottom trawl START TIME (PDT) : 1445 DURATION (min): 20

BOTTOM DEPTH (m): Start: 377 End: 370 Est. Av. Depth: 373

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 090 SPEED kn: 3.4 DISTANCE TRAVELLED mi. 1.3

SET ON: WATER CONDITION: calm TIDE:

WIND DIRECTION: WIND SPEED: 0 RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 1097 m. Trawl caught on coral or rocks. Rock in codend.

SOUNDER SUMMARY: Nothing showning on sounder.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 21 SET/HAUL NO. 68

LOCATION: McIntyre Bay (Tow Hill) AREA: Dixon Entrance

START: Lat. 54° 10.3' Long. 131° 54.5'

END: Lat. 54° 09.1' Long. 132° 58.7'

GEAR: Flat bottom trawl START TIME: (PDT) : 0815 DURATION (min): 30

BOTTOM DEPTH (m): Start: 84 End: 91 Est. Av. Depth: 87

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 270 SPEED kn: DISTANCE TRAVELLED mi. 2.8

SET ON: WATER CONDITION: calm TIDE:

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: M.S.S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 274 m.

SOUNDER SUMMARY: Individual spotting 37-73 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 21 SET/HAUL NO. 69

LOCATION: McIntyre Bay AREA: Dixon Entrance

START: Lat. 54° 15.3' Long. 131° 56.5'

END: Lat. 54° 15.7' Long. 131° 59.5'

GEAR: Flat bottom trawl START TIME (PDT) : 1005 DURATION (min): 30

BOTTOM DEPTH (m): Start: 181 End: 190 Est. Av. Depth: 181

NET DEPTH RANGE m: _____ Est. Av. Depth: _____

DIRECTION OF SET °true: 270 SPEED kn: 3.4 DISTANCE TRAVELLED mi. 1.8

SET ON: _____ WATER CONDITION: calm TIDE: strong

WIND DIRECTION: _____ WIND SPEED: 0 RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 503 m.

SOUNDER SUMMARY: Dense spotting 100-165 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 21 SET/HAUL NO. 70

LOCATION: McIntyre Bay AREA: Dixon Entrance

START: Lat. 54° 14.2' Long. 131° 55.0'

END: Lat. 54° 15.3' Long. 131° 56.7'

GEAR: Diamond 5 START TIME: (PDT) : 1300 DURATION (min): 40

BOTTOM DEPTH (m): Start: 181 End: 179 Est. Av. Depth: 180

NET DEPTH RANGE m: 105-135 Est. Av. Depth: _____

DIRECTION OF SET °true: 265-270 SPEED kn: 2.4-4.5 DISTANCE TRAVELLED mi.: 1.5

SET ON: 100 m WATER CONDITION: calm TIDE: _____

WIND DIRECTION: _____ WIND SPEED: 5 RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 320/366. Net open 9 m. Fish going over or under net despite adjustments in net depth. Port wing laced together.

SOUNDER SUMMARY: Targets 100 and 128 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 21 SET/HAUL NO. 71

LOCATION: McIntyre Bay AREA: Dixon Entrance

START: Lat. 54° 14.6' Long. 131° 55.6'

END: Lat. 54° 15.5' Long. 131° 52.0'

GEAR: Diamond 5 START TIME (PDT) : 1425 DURATION (min): 45

BOTTOM DEPTH (m): Start: 170 End: 194 Est. Av. Depth: 190

NET DEPTH RANGE m: 90-110 Est. Av. Depth: 100

DIRECTION OF SET °true: 090 SPEED kn: 3.5-3.7 DISTANCE TRAVELLED mi. 2.3

SET ON: 90 m WATER CONDITION: calm TIDE:

WIND DIRECTION: WIND SPEED: RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 274 m. Net open 11.0 m, port wing unlaced.

SOUNDER SUMMARY: Spotting 90-100 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 21 SET/HAUL NO. 72

LOCATION: McIntyre Bay AREA: Dixon Entrance

START: Lat. 54° 15.3' Long. 131° 54.3'

END: Lat. 54° 15.1' Long. 131° 56.2'

GEAR: Diamond 5 START TIME: (PDT) : 1555 DURATION (min): 60

BOTTOM DEPTH (m): Start: 198 End: 187 Est. Av. Depth:

NET DEPTH RANGE m: 13 - 9 m from surface Est. Av. Depth:

DIRECTION OF SET °true: 180-220 SPEED kn: 3.5-4.6 DISTANCE TRAVELLED mi. 1.1

SET ON: WATER CONDITION: calm TIDE:

WIND DIRECTION: WIND SPEED: RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 44 m. Net open 9 m.

SOUNDER SUMMARY: Spotting layer 115-130 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 21 SET/HAUL NO. 73

LOCATION: Two Peaks AREA: Dixon Entrance

START: Lat. 54° 20.2' Long. 131° 25.8'

END: Lat. 54° 21.0' Long. 131° 23.2'

GEAR: Diamond 5 START TIME (PDT) : 1925 DURATION (min): 35

BOTTOM DEPTH (m): Start: 180 End: 175 Est. Av. Depth: 188

NET DEPTH RANGE m: 18-22 m Est. Av. Depth: 22

DIRECTION OF SET °true: 060 SPEED kn: 5.0 DISTANCE TRAVELLED mi. 1.7

SET ON: _____ WATER CONDITION: light chop TIDE: _____

WIND DIRECTION: SE WIND SPEED: 10 RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m.

SOUNDER SUMMARY: Light scatter on bottom; few light spots 18 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 22 SET/HAUL NO. 74

LOCATION: Two Peaks AREA: Dixon Entrance

START: Lat. 54° 21.8' Long. 131° 20.2'

END: Lat. 54° 20.8' Long. 131° 23.5'

GEAR: Diamond 5 START TIME: (PDT) : 0755 DURATION (min): 30

BOTTOM DEPTH (m): Start: 179 End: 181 Est. Av. Depth: _____

NET DEPTH RANGE m: 70-95 Est. Av. Depth: _____

DIRECTION OF SET °true: 270 SPEED kn: 3.7 DISTANCE TRAVELLED mi. 2.2

SET ON: 90 m WATER CONDITION: light chop TIDE: _____

WIND DIRECTION: SE WIND SPEED: 10-15 RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 274/320. Net open 11 m.

SOUNDER SUMMARY: Medium spotting, 70-90 m.

Appendix table 1 (cont'd)

	Yr	Mo.	Day
VESSEL: ARCTIC HARVESTER DATE:	77	08	22

SET/HAUL NO. 75

LOCATION: Two Peaks AREA: Dixon Entrance

START: Lat. 54° 20.2' Long. 131° 26.4'

END: Lat. 54° 20.3' Long. 131° 30.8'

GEAR: Diamond 5 START TIME (PDT) : 0908 DURATION (min): 30

BOTTOM DEPTH (m): Start: 181 End: 192 Est. Av. Depth: 186

NET DEPTH RANGE m: groundline 5 m off bottom Est. Av. Depth:

DIRECTION OF SET °true: 270 SPEED kn: 3.5 DISTANCE TRAVELLED mi. 2.6

SET ON: WATER CONDITION: light chop TIDE: ebb

WIND DIRECTION: SE WIND SPEED: 15-20 RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 250 m. Net open 11 m. Groundline 4 m off bottom.

SOUNDER SUMMARY:

	Yr	Mo.	Day
VESSEL: ARCTIC HARVESTER DATE:	77	08	22

SET/HAUL NO. 76

LOCATION: Two Peaks AREA: Dixon Entrance

START: Lat. 54° 20.0' Long. 131° 24.7'

END: Lat. 54° 21.7' Long. 131° 23.0'

GEAR: Flat bottom trawl START TIME: (PDT) : 1245 DURATION (min): 30

BOTTOM DEPTH (m): Start: 176 End: 179 Est. Av. Depth: 178

NET DEPTH RANGE m: Bottom Est. Av. Depth:

DIRECTION OF SET °true: 095 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 2.0

SET ON: WATER CONDITION: light chop TIDE: ebb-strong

WIND DIRECTION: SE WIND SPEED: 15 RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 503 m.

SOUNDER SUMMARY: Light spotting at 73 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 23 SET/HAUL NO. 77

LOCATION: W. of Triple Island AREA: Hecate Strait

START: Lat. 54° 21.0' Long. 131° 01.4'

END: Lat. 54° 23.2' Long. 131° 02.6'

GEAR: Diamond 5 START TIME (PDT) : 0900 DURATION (min): 10

BOTTOM DEPTH (m): Start: 42 End: 75 Est. Av. Depth:

NET DEPTH RANGE m: 3-10 m of bottom Est. Av. Depth:

DIRECTION OF SET °true: 310 SPEED kn: 4.5 DISTANCE TRAVELLED mi. 2.3

SET ON: WATER CONDITION: light chop TIDE:

WIND DIRECTION: SE WIND SPEED: 20 RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGR

REMARKS: Warp 91/137 m. Net open 11 m.

SOUNDER SUMMARY: Dense concentration on bottom and 27-40 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 23 SET/HAUL NO. 78

LOCATION: Dundas Is. AREA: Hecate Strait

START: Lat. 54° 28.6' Long. 131° 04.0'

END: Lat. 54° 26.7' Long. 131° 04.6'

GEAR: Diamond 5 START TIME: (PDT) : 1040 DURATION (min):

BOTTOM DEPTH (m): Start: 154 End: 146 m Est. Av. Depth: 150

NET DEPTH RANGE m: 55-64 m Est. Av. Depth: 60

DIRECTION OF SET °true: 200 SPEED kn: 4.2 DISTANCE TRAVELLED mi. 1.9

SET ON: 35-64 m WATER CONDITION: low swell TIDE:

WIND DIRECTION: SE WIND SPEED: 15 RECORDER: M.S.S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 137 m. Net open 11 m.

SOUNDER SUMMARY: Distinct spots 55-70 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 23 SET/HAUL NO. 79

LOCATION: Dundas Is. AREA: N. Hecate Strait

START: Lat. 54° 27.5' Long. 131° 04.7'

END: Lat. 54° 29.0' Long. 131° 03.2'

GEAR: Diamond 5 START TIME (PDT) : 1150 DURATION (min): 30

BOTTOM DEPTH (m): Start: 146 End: 146 Est. Av. Depth: 146

NET DEPTH RANGE m: 32-38 m off bottom Est. Av. Depth: 110

DIRECTION OF SET °true: 020 SPEED kn: 3.7 DISTANCE TRAVELLED mi. 1.7

SET ON: 110 m WATER CONDITION: choppy TIDE: _____

WIND DIRECTION: SE WIND SPEED: 15 RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 311 m. Net open 11 m.

SOUNDER SUMMARY: Light spotting 110-120 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 23 SET/HAUL NO. 80

LOCATION: Dundas Is. AREA: N. Hecate Strait

START: Lat. 54° 29.3' Long. 131° 04.0'

END: Lat. 54° 28.0' Long. 131° 05.1'

GEAR: Flat bottom trawl START TIME: (PST) : 1320 DURATION (min): 30

BOTTOM DEPTH (m): Start: 148 End: 139 Est. Av. Depth: 145

NET DEPTH RANGE m: bottom Est. Av. Depth: _____

DIRECTION OF SET °true: 200 SPEED kn: 3.5 DISTANCE TRAVELLED mi. 1.5

SET ON: _____ WATER CONDITION: choppy TIDE: _____

WIND DIRECTION: SE WIND SPEED: 15 RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 457 m.

SOUNDER SUMMARY: Small indistinct bumps on bottom, strong concentrations 90-110 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 23 SET/HAUL NO. 81

LOCATION: Butterworth Rocks AREA: Hecate Strait

START: Lat. 54° 09.0' Long. 131° 03.7'

END: Lat. 54° 07.4' Long. 131° 03.6'

GEAR: Flat bottom trawl START TIME (PDT) : 1730 DURATION (min): 30

BOTTOM DEPTH (m): Start: 93 End: 90 Est. Av. Depth: 95

NET DEPTH RANGE m: Bottom Est. Av. Depth:

DIRECTION OF SET °true: 180 SPEED kn: 3.7 DISTANCE TRAVELLED mi. 1.6

SET ON: WATER CONDITION: choppy TIDE:

WIND DIRECTION: SE WIND SPEED: 20 RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 274 m.

SOUNDER SUMMARY: Individual spotting 73-82 m; some faint individual spots on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 23 SET/HAUL NO. 82

LOCATION: Warrior Rocks AREA: Hecate Strait

START: Lat. 53° 57.2' Long. 130° 59.8'

END: Lat. 53° 55.5' Long. 131° 00.0'

GEAR: Flat bottom trawl START TIME: (PDT) : 1942 DURATION (min): 30

BOTTOM DEPTH (m): Start: 84 End: 79 Est. Av. Depth:

NET DEPTH RANGE m: bottom Est. Av. Depth:

DIRECTION OF SET °true: SPEED kn: 3.0 DISTANCE TRAVELLED mi. 1.7

SET ON: WATER CONDITION: very choppy TIDE:

WIND DIRECTION: SE WIND SPEED: 25 RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 229 m.

SOUNDER SUMMARY: Light scattering layer 9 m; light individual spotting 45-65 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 24 SET/HAUL NO. 83

LOCATION: Warrior Rocks AREA: Hecate Strait

START: Lat. 53° 56' Long. 131° 00'

END: Lat. 53° 56' Long. 130° 59'

GEAR: Flat bottom trawl START TIME (PDT) : 0800 DURATION (min): 8

BOTTOM DEPTH (m): Start: 73 End: Est. Av. Depth:

NET DEPTH RANGE m: Est. Av. Depth:

DIRECTION OF SET °true: 140 SPEED kn: 3.5 DISTANCE TRAVELLED mi. 0.6

SET ON: WATER CONDITION: TIDE:

WIND DIRECTION: WIND SPEED: RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 247 m. Net hooked up on bottom, broke sweep lines.

SOUNDER SUMMARY: Light spotting 36-64 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 24 SET/HAUL NO. 84

LOCATION: White Rocks AREA: Hecate Strait

START: Lat. 53° 43.6' Long. 130° 43.8'

END: Lat. 53° 40.2' Long. 130° 44.5'

GEAR: Diamond 5 START TIME: (PDT) : 1012 DURATION (min): 45

BOTTOM DEPTH (m): Start: 128 End: 139 Est. Av. Depth:

NET DEPTH RANGE m: 10-11 Est. Av. Depth:

DIRECTION OF SET °true: 165 SPEED kn: 4.5 DISTANCE TRAVELLED mi. 3.4

SET ON: 10 m WATER CONDITION: calm TIDE:

WIND DIRECTION: E WIND SPEED: 5 RECORDER:

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 48 m. Net open 6 m.

SOUNDER SUMMARY: Light spotting layer 55-90 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 24 SET/HAUL NO. 85

LOCATION: White Rocks AREA: Hecate Strait

START: Lat. 53° 41.0' Long. 130° 42.3'

END: Lat. 53° 42.5' Long. 130° 44.0'

GEAR: Diamond 5 START TIME (PDT) : 1150 DURATION (min): 30

BOTTOM DEPTH (m): Start: 120 End: 134 Est. Av. Depth:

NET DEPTH RANGE m: 55-73 Est. Av. Depth:

DIRECTION OF SET °true: 350 SPEED kn: 3.7/4.2 DISTANCE TRAVELLED mi. 1.8

SET ON: WATER CONDITION: calm TIDE:

WIND DIRECTION: E WIND SPEED: 5 RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 274 m. Net open 9 m.

SOUNDER SUMMARY: Light scattering layer 55-73 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 24 SET/HAUL NO. 86

LOCATION: White Rocks AREA: Hecate Strait

START: Lat. 53° 43.0' Long. 130° 44.2'

END: Lat. 53° 41.0' Long. 130° 42.5'

GEAR: Diamond 5 START TIME: (PDT) : 1313 DURATION (min): 30

BOTTOM DEPTH (m): Start: 139 End: 135 Est. Av. Depth: 137

NET DEPTH RANGE m: 2 to 4 m off bottom Est. Av. Depth: 131

DIRECTION OF SET °true: 170 SPEED kn: 3.5 DISTANCE TRAVELLED mi. 2.2

SET ON: WATER CONDITION: calm TIDE:

WIND DIRECTION: E WIND SPEED: 5 RECORDER: M. S. S.

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 411 m. Net open 8 m.

SOUNDER SUMMARY: Light spotting 55 -90 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 24 SET/HAUL NO. 87

LOCATION: S. of Bonilla AREA: Hecate Strait

START: Lat. 53° 20.9' Long. 130° 48.7'

END: Lat. 53° 19.2' Long. 130° 48.6'

GEAR: Diamond 5 START TIME (PDT) : 1750 DURATION (min): 35

BOTTOM DEPTH (m): Start: 146 End: 144 Est. Av. Depth: 146

NET DEPTH RANGE m: 110 - 140 Est. Av. Depth: 130

DIRECTION OF SET °true: 165 SPEED kn: 3.2/3.8 DISTANCE TRAVELLED mi. 1.7

SET ON: 110 to 140 m WATER CONDITION: calm TIDE: very strong

WIND DIRECTION: _____ WIND SPEED: 0 RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 411 m. Net open 9 m.

SOUNDER SUMMARY: Individual spotting 110 m to bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 24 SET/HAUL NO. 88

LOCATION: S. of Bonilla AREA: Hecate Strait

START: Lat. 53° 18.7' Long. 130° 48.5'

END: Lat. 53° 21.2' Long. 130° 49.7'

GEAR: Diamond 5 START TIME: (PDT) : 1950 DURATION (min): 30

BOTTOM DEPTH (m): Start: 139 End: 150 Est. Av. Depth: 144

NET DEPTH RANGE m: 53 - 55 Est. Av. Depth: _____

DIRECTION OF SET °true: 350 SPEED kn: 4.6 DISTANCE TRAVELLED mi. 2.6

SET ON: 55 WATER CONDITION: calm TIDE: _____

WIND DIRECTION: - WIND SPEED: 0 RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 181 m. Net open 9 m.

SOUNDER SUMMARY: Individual spotting 55 m.

Appendix table 1 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 08 25 SET/HAUL NO. 89

LOCATION: 24 mi SW of Banks Island AREA: Hecate Strait

START: Lat. 52° 51.5' Long. 130° 22.5'

END: Lat. 52° 50.0' Long. 130° 23.5'

GEAR: Diamond 5 START TIME (PDT) : 0840 DURATION (min): 25

BOTTOM DEPTH (m): Start: 179 End: 190 Est. Av. Depth: _____

NET DEPTH RANGE m: 146 - 165 Est. Av. Depth: _____

DIRECTION OF SET °true: 180 SPEED kn: 3.0/3.2 DISTANCE TRAVELLED mi. 1.6

SET ON: 146 m WATER CONDITION: calm TIDE: _____

WIND DIRECTION: _____ WIND SPEED: _____ RECORDER: M. S. S.

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 411/457 m.

SOUNDER SUMMARY: _____

Appendix table 2. Set information, ARCTIC HARVESTER, June 1978.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 12 SET/HAUL NO. 1

LOCATION: 9.5 miles W of Warrior Rks. AREA: Hecate Strait

START: Lat. 54° 04.2' Long. 131° 07.2'

END: Lat. 54° 06.3' Long. 131° 07.6'

GEAR: West coast flat trawl START TIME (PDT) : 0800 DURATION (min): 30

BOTTOM DEPTH (m): Start: 31 End: 26 Est. Av. Depth: 25

NET DEPTH RANGE m: Bottom Est. Av. Depth: 25

DIRECTION OF SET °true: 359° SPEED kn: 3.5 DISTANCE TRAVELLED mi. 1.75

SET ON: Pre-determined WATER CONDITION: calm TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: MSS & KW

TTM: _____ TDM: _____ BT: 2 OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m.

SOUNDER SUMMARY: Dense spotting 9-18 m - first 10 min of set using expanded scale.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 12 SET/HAUL NO. 2

LOCATION: 11.5 mi. W of Warrior Rks. AREA: Hecate Strait

START: Lat. 54° 03.8' Long. 131° 10.4'

END: Lat. 54° 06.0' Long. 131° 9.8'

GEAR: West coast flat trawl START TIME: (PDT) : 1224 DURATION (min): 30

BOTTOM DEPTH (m): Start: 29 End: 30 Est. Av. Depth: 29

NET DEPTH RANGE m: Bottom Est. Av. Depth: 29

DIRECTION OF SET °true: 190 SPEED kn: 3.9 DISTANCE TRAVELLED mi. 2.0

SET ON: Pre-determined WATER CONDITION: light swell TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Warp 91 m.

SOUNDER SUMMARY: Occasional light spotting on bottom toward end of tow. Also light spotting very occasionally at 9-18 m.

Appendix table 2 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 12 SET/HAUL NO. 3

LOCATION: 11.5 mi. ESE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 06.0' Long. 131° 21.5'

END: Lat. 54° 06.5' Long. 131° 22.9'

GEAR: West coast flat trawl START TIME (PDT) : 1430 DURATION (min): 20

BOTTOM DEPTH (m): Start: 27 End: 22 Est. Av. Depth: 23

NET DEPTH RANGE m: Bottom Est. Av. Depth: 23

DIRECTION OF SET °true: 295° SPEED kn: 3.8 DISTANCE TRAVELLED mi. 1.1

SET ON: Pre-determined WATER CONDITION: light swell TIDE: Flood

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: 3 OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Occasional spotting layer 27-30 m. Occasional spotting on bottom. After 20 min, either a large amount of fish or rocks on bottom showing on sounder.

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 12 SET/HAUL NO. 4

LOCATION: 9.5 mi. ESE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 06.7' Long. 131° 24.3'

END: Lat. 54° 08.1' Long. 131° 25.9'

GEAR: West coast flat trawl START TIME: (PDT) : 30 DURATION (min):

BOTTOM DEPTH (m): Start: 22 End: 17 Est. Av. Depth: 20

NET DEPTH RANGE m: Bottom Est. Av. Depth: 20

DIRECTION OF SET °true: 325° SPEED kn: 4 DISTANCE TRAVELLED mi. 2.0

SET ON: Pre-determined WATER CONDITION: light swell TIDE: Flood

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Very light spotting 2-15 meters. Light spotting off bottom (occasional).

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 12 SET/HAUL NO. 5

LOCATION: 7 mi. SE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 05.6' Long. 131° 29.7'

END: Lat. 54° 07.6' Long. 139° 29.7'

GEAR: West coast flat trawl START TIME (PDT) : 1802 DURATION (min): 30

BOTTOM DEPTH (m): Start: 9.1 End: 12.8 Est. Av. Depth: 11

NET DEPTH RANGE m: Bottom Est. Av. Depth: 11

DIRECTION OF SET °true: 000 SPEED kn: 3.9 DISTANCE TRAVELLED mi. 1.9

SET ON: Pre-determined WATER CONDITION: light swell TIDE: Flood

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Occasional moderate spotting 2-9 m. Some spots on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 06 13 SET/HAUL NO. 6

LOCATION: 5.5 mi. SE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 06.2' Long. 131° 32.3'

END: Lat. 54° 04.5' Long. 131° 31.8'

GEAR: West coast flat trawl START TIME: (PDT) : 0750 DURATION (min): 30

BOTTOM DEPTH (m): Start: 17 End: 18 Est. Av. Depth: 18

NET DEPTH RANGE m: Bottom Est. Av. Depth: 18

DIRECTION OF SET °true: 170 SPEED kn: 4.0 DISTANCE TRAVELLED mi. 2.0

SET ON: Pre-determined WATER CONDITION: light chop TIDE: _____

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: MSS

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Net possibly flown. 46 m warp.

SOUNDER SUMMARY: Small spots off bottom during first 1/2 of tow.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 13 SET/HAUL NO. 7

LOCATION: 4 mi. SSE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 05.7' Long. 131° 37.8'

END: Lat. 54° 06.3' Long. 131° 38.0'

GEAR: West coast flat trawl START TIME (PDT) : 0913 DURATION (min): 10

BOTTOM DEPTH (m): Start: 13 End: 13 Est. Av. Depth: 13

NET DEPTH RANGE m: Bottom Est. Av. Depth: 13

DIRECTION OF SET °true: 355 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 0.5

SET ON: Pre-determined WATER CONDITION: _____ TIDE: _____

WIND DIRECTION: _____ WIND SPEED: _____ RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Hooked up 25 m warp. Tore up port wing

SOUNDER SUMMARY: Very light spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 77 06 13 SET/HAUL NO. 8

LOCATION: 5 mi E of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 2.6' Long. 131° 32.4'

END: Lat. 54° 0.6 Long. 131° 32.4'

GEAR: West coast flat trawl START TIME: (PDT) : 1230 DURATION (min): 30

BOTTOM DEPTH (m): Start: 17 End: 15 Est. Av. Depth: 16

NET DEPTH RANGE m: Bottom Est. Av. Depth: 16

DIRECTION OF SET °true: 180 SPEED kn: 3.9 DISTANCE TRAVELLED mi. 2.0

SET ON: Pre-determined WATER CONDITION: light swell TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Light occasional spotting on bottom continuous through tow.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 13 SET/HAUL NO. 9

LOCATION: 8 mi. SSE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 1.2' Long. 131° 37.5'

END: Lat. 54° 2.0' Long. 131° 37.5'

GEAR: West coast flat trawl START TIME (PDT) : 1748 DURATION (min): 10

BOTTOM DEPTH (m): Start: 17 End: 18 Est. Av. Depth: 17

NET DEPTH RANGE m: Bottom Est. Av. Depth: 17

DIRECTION OF SET °true: 000 SPEED kn: 4.0 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: chop TIDE:

WIND DIRECTION: NW WIND SPEED: 15-20 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS:

SOUNDER SUMMARY: Dense spotting off bottom throughout the tow.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 14 SET/HAUL NO. 10

LOCATION: 11 mi E of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 1.2' Long. 131° 22.7'

END: Lat. 54° 2.2' Long. 131° 23.0'

GEAR: West coast flat trawl START TIME: (PDT) : 0750 DURATION (min): 15

BOTTOM DEPTH (m): Start: 27.4 End: 27.4 Est. Av. Depth: 27.4

NET DEPTH RANGE m: Bottom Est. Av. Depth: 27.4

DIRECTION OF SET °true: 355° SPEED kn: 3.9 DISTANCE TRAVELLED mi. 1.5

SET ON: Pre-determined WATER CONDITION: swell TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: KW

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: 91 m warp.

SOUNDER SUMMARY: Moderate continuous spotting on bottom. Continuous spotting surface to 18 m.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 14 SET/HAUL NO. 11

LOCATION: 9.5 mi. E of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 3.0' Long. 131° 25.9'

END: Lat. 54° 5.0' Long. 131° 24.5'

GEAR: West coast flat trawl START TIME (PDT) : 0850 DURATION (min): 30

BOTTOM DEPTH (m): Start: 23.8 End: 22 Est. Av. Depth: 22

NET DEPTH RANGE m: Bottom Est. Av. Depth: 22

DIRECTION OF SET °true: 010 SPEED kn: 3.4 DISTANCE TRAVELLED mi. 2.7

SET ON: Pre-determined WATER CONDITION: swell TIDE: ebb

WIND DIRECTION: NNW WIND SPEED: 25 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 91 m warp.

SOUNDER SUMMARY: Moderate continuous stacks 0-10 m. Moderate spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 12 SET/HAUL NO. 12

LOCATION: 5 mi. E of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 8.5' Long. 131° 31.3'

END: Lat. 54° 7.5' Long. 131° 31.3'

GEAR: West coast flat trawl START TIME: (PDT) : 1130 DURATION (min): 15

BOTTOM DEPTH (m): Start: 20 End: 18 Est. Av. Depth: 19

NET DEPTH RANGE m: Bottom Est. Av. Depth: 19

DIRECTION OF SET °true: 180 SPEED kn: 3.9 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: swell TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 91 m warp.

SOUNDER SUMMARY: Continuous moderate stacking layer 0-9 m. Occasional light spotting 9-18 m. Occasional spots on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 14 SET/HAUL NO. 13

LOCATION: 8 mi. ENE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 11.0' Long. 131° 27.1'

END: Lat. 54° 9.8' Long. 131° 26.6'

GEAR: West coast flat trawl START TIME (PDT) : 1315 DURATION (min): 15

BOTTOM DEPTH (m): Start: 20 End: 20 Est. Av. Depth: 20

NET DEPTH RANGE m: Bottom Est. Av. Depth: 20

DIRECTION OF SET °true: 170 SPEED kn: 3.9 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: swell TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Set course altered slightly due to commercial crab gear. 91 m warp.

SOUNDER SUMMARY: Moderate spotting layer 0-9 m. Occasional light spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 12 SET/HAUL NO. 14

LOCATION: 16 mi. E of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 8.5' Long. 131° 13.0'

END: Lat. 54° 9.3' Long. 131° 13.1'

GEAR: West coast flat trawl START TIME: (PDT) : 1405 DURATION (min): 15

BOTTOM DEPTH (m): Start: 24 End: 20 Est. Av. Depth: 21

NET DEPTH RANGE m: Bottom Est. Av. Depth: 23

DIRECTION OF SET °true: 000 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: swell TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 91 m warp. Loran C not accurate.

SOUNDER SUMMARY: Heavy stacking, 0-9 m. Occasional moderate spotting on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 14 SET/HAUL NO. 15

LOCATION: 16.5 mi. E of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 8.7' Long. 131° 12.2'

END: Lat. 54° 8.1' Long. 131° 12.0'

GEAR: West coast flat trawl START TIME (PDT) : 1525 DURATION (min): 20

BOTTOM DEPTH (m): Start: 26 End: 26 Est. Av. Depth: 26

NET DEPTH RANGE m: Bottom Est. Av. Depth: 26

DIRECTION OF SET °true: 180° SPEED kn: 2.9 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: swell TIDE: slack

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 91 m warp.

SOUNDER SUMMARY: Heavy stacking 0-10 m. Occasional spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 14 SET/HAUL NO. 16

LOCATION: 8 mi. SW Butterworth Rks AREA: Hecate Strait

START: Lat. 54° 08' Long. 131° 07'

END: Lat. 54° 09' Long. 131° 07'

GEAR: West coast flat trawl START TIME: (PDT) : 1635 DURATION (min): 15

BOTTOM DEPTH (m): Start: 31 End: 27 Est. Av. Depth: 29

NET DEPTH RANGE m: Bottom Est. Av. Depth: 29

DIRECTION OF SET °true: 000 SPEED kn: 3.9 DISTANCE TRAVELLED mi. 1.1

SET ON: Pre-determined WATER CONDITION: swell TIDE: flood

WIND DIRECTION: NW WIND SPEED: 30 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: 0-10 m long "haystack" layer--very dark, thick and continuous. Occasional spots on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 15 SET/HAUL NO. 17

LOCATION: 1.8 mi. SE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 08.1' Long. 131° 37.6'

END: Lat. 54° 07.5' Long. 131° 37.6'

GEAR: 70' Gulf semi-balloon START TIME (PDT) : 0822 DURATION (min): 15

BOTTOM DEPTH (m): Start: 14.6 End: 14.6 Est. Av. Depth: 14.6

NET DEPTH RANGE m: Bottom Est. Av. Depth: 14.6

DIRECTION OF SET °true: 180 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: light chop TIDE:

WIND DIRECTION: NW WIND SPEED: 25 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Spreader wires. Warp length 46 m.

SOUNDER SUMMARY: Very occasional light stacking off bottom on expanded scale

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 14 SET/HAUL NO. 18

LOCATION: 2.9 mi. ESE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 08.0' Long. 131° 35.5'

END: Lat. 54° 08.7' Long. 131° 35.5'

GEAR: 70' Gulf semi-balloon START TIME: (PDT) : 0910 DURATION (min): 15

BOTTOM DEPTH (m): Start: 20 End: 18 Est. Av. Depth: 19

NET DEPTH RANGE m: Bottom Est. Av. Depth: 19

DIRECTION OF SET °true: 000 SPEED kn: 2.4 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: chop TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: 46 m warp & spreader wires.

SOUNDER SUMMARY: Small spots on A-1 expanded scale.

Appendix table 2 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 14 SET/HAUL NO. 19

LOCATION: 3 mi SE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 06.8' Long. 131° 36.9'

END: Lat. 54° 06.4' Long. 131° 37.2'

GEAR: 70' Gulf semi-balloon START TIME (PDT) : 1010 DURATION (min): 15

BOTTOM DEPTH (m): Start: 18 End: 18 Est. Av. Depth: 18

NET DEPTH RANGE m: Bottom Est. Av. Depth: 18

DIRECTION OF SET °true: 185 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: light chop TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Both groundline and hanging line broke. Web ripped from ribline and torn.

SOUNDER SUMMARY: Steady spotting on sounder.

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 15 SET/HAUL NO. 20

LOCATION: 5.5 mi. SSE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 04.6' Long. 131° 35.4'

END: Lat. 54° 05.3' Long. 131° 35.0'

GEAR: 70' Gulf semi-balloon START TIME: (PDT) : 1550 DURATION (min): 15

BOTTOM DEPTH (m): Start: 16.5 End: 18.2 Est. Av. Depth: 17

NET DEPTH RANGE m: Bottom Est. Av. Depth: 17

DIRECTION OF SET °true: 10° SPEED kn: 2.3 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: light chop TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: 46 m warp & spreaders.

SOUNDER SUMMARY: Few small spots.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 15 SET/HAUL NO. 21

LOCATION: 3.5 mi. E of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 3.1' Long. 131° 36.8'

END: Lat. 54° 2.6' Long. 131° 36.9'

GEAR: 70' Gulf semi-balloon START TIME (PDT) : 1635 DURATION (min): 15

BOTTOM DEPTH (m): Start: 12.8 End: 16.5 Est. Av. Depth: 14

NET DEPTH RANGE m: Bottom Est. Av. Depth: 14

DIRECTION OF SET °true: 185° SPEED kn: 2.4 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: light chop TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: 46 m warp and spreaders

SOUNDER SUMMARY:

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 15 SET/HAUL NO. 22

LOCATION: 2.5 mi ESE of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 1.7' Long. 131° 39.0'

END: Lat. 54° 1.3' Long. 131° 39.1'

GEAR: 70' Gulf semi-balloon START TIME: (PDT) : 1805 DURATION (min): 15

BOTTOM DEPTH (m): Start: 11 End: 11 Est. Av. Depth: 11

NET DEPTH RANGE m: Bottom Est. Av. Depth: 11

DIRECTION OF SET °true: 185° SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: WIND SPEED: RECORDER: KW

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS:

SOUNDER SUMMARY: 0-37 m - light scatter layer. Occasional heavy spotting on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 15 SET/HAUL NO. 23

LOCATION: 2.5 mi. SE of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 1.4' Long. 131° 39.9'

END: Lat. 54° 0.7' Long. 131° 41.0'

GEAR: 70' Gulf semi-balloon START TIME (PDT) : 1840 DURATION (min): 15

BOTTOM DEPTH (m): Start: 11 End: 11 Est. Av. Depth: 11

NET DEPTH RANGE m: Bottom Est. Av. Depth: 11

DIRECTION OF SET °true: 190° SPEED kn: 2.8 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: NW WIND SPEED: 10-15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Scatter layer 0-3 m. Continuous moderate spotting 7-11 m. Occasional spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 15 SET/HAUL NO. 24

LOCATION: 2.2 mi SE of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 03.3' Long. 131° 39'

END: Lat. 54° 05.1' Long. 131° 39'

GEAR: 70' Gulf semi-balloon START TIME: (PDT) : 1913 DURATION (min): 15

BOTTOM DEPTH (m): Start: 15 End: 15 Est. Av. Depth: 15

NET DEPTH RANGE m: Bottom Est. Av. Depth: 15

DIRECTION OF SET °true: 000 SPEED kn: 2.8 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: NW WIND SPEED: 10-15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: 0-4 m - light scatter layer. Occasional moderate spotting on bottom.

Appendix table 2 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 16 SET/HAUL NO. 25

LOCATION: 3.5 mi. SE of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 0.4' Long. 131° 38.9'

END: Lat. 54° 59.8' Long. 131° 39.7'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 0805 DURATION (min): 15

BOTTOM DEPTH (m): Start: 13 End: 9.1 Est. Av. Depth: 10

NET DEPTH RANGE m: Bottom Est. Av. Depth: 10

DIRECTION OF SET °true: 230° SPEED kn: 2.9 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: WSW WIND SPEED: 10-15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Heavy continuous spotting 9 m to bottom.

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 16 SET/HAUL NO. 26

LOCATION: 4.5 mi SE of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 00.2' Long. 131° 37.6'

END: Lat. 54° 00.6' Long. 131° 37.2'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 0845 DURATION (min): 15

BOTTOM DEPTH (m): Start: 13 End: 13.5 Est. Av. Depth: 13

NET DEPTH RANGE m: Bottom Est. Av. Depth: 13

DIRECTION OF SET °true: 10° SPEED kn: 2.7 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: SE WIND SPEED: 10-15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Cut tow off 3 min. early.

SOUNDER SUMMARY: 0-3 m occasional light spotting. 9 m - bottom - heavy continuous spotting.

Appendix table 2 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 16 SET/HAUL NO. 27

LOCATION: 5.9 mi. SSE of Argonaut Hill AREA: Hecate Strait

START: Lat. 53° 57.3 Long. 131° 40.3'

END: Lat. 53° 57.8' Long. 131° 39.6'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1045 DURATION (min): 8

BOTTOM DEPTH (m): Start: 13 End: 13 Est. Av. Depth: 13

NET DEPTH RANGE m: Bottom Est. Av. Depth: 13

DIRECTION OF SET °true: 010° SPEED kn: 2.5 DISTANCE TRAVELLED mi. 0.4

SET ON: Pre-determined WATER CONDITION: chop TIDE: slack

WIND DIRECTION: SE WIND SPEED: 10-15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Hauled after 8 min. Fish thick on bottom.

SOUNDER SUMMARY: Heavy continuous spotting on bottom. Light scatter 0-4 m.

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 16 SET/HAUL NO. 28

LOCATION: 7 mi SE of Argonaut Hill AREA: Hecate Strait

START: Lat. 53° 58.9' Long. 131° 33.1'

END: Lat. 53° 59.6' Long. 131° 32.7'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1135 DURATION (min): 15

BOTTOM DEPTH (m): Start: 15 End: 16.5 Est. Av. Depth: 16

NET DEPTH RANGE m: Bottom Est. Av. Depth: 16

DIRECTION OF SET °true: 10° SPEED kn: 2.7 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: SE WIND SPEED: 10-15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Occasional spotting on bottom. Light scatter 0-4 m.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 16 SET/HAUL NO. 29

LOCATION: 6.2 mi. ESE of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 0.6' Long. 131° 33.1'

END: Lat. 54° 1.3' Long. 131° 32.7'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1325 DURATION (min): 15

BOTTOM DEPTH (m): Start: 16.5 End: 17 Est. Av. Depth: 17

NET DEPTH RANGE m: Bottom Est. Av. Depth: 17

DIRECTION OF SET °true: 010° SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.9

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 8-10 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Light scattering layer 0-6 m. Light, very occasional spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 16 SET/HAUL NO. 30

LOCATION: 8.1 mi ESE of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 1.1' Long. 131° 29.5'

END: Lat. 54° 0.1' Long. 131° 29.7'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1410 DURATION (min): 15

BOTTOM DEPTH (m): Start: 18 End: 17 Est. Av. Depth: 17

NET DEPTH RANGE m: Bottom Est. Av. Depth: 17

DIRECTION OF SET °true: 190 SPEED kn: 2.8 DISTANCE TRAVELLED mi. 0.9

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 10-15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Occasional light spotting on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 16 SET/HAUL NO. 31

LOCATION: 10.8 mi. E of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 3.2' Long. 131° 24.5'

END: Lat. 54° 2.7' Long. 131° 24.7'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1510 DURATION (min): 15

BOTTOM DEPTH (m): Start: 20 End: 22 Est. Av. Depth: 21

NET DEPTH RANGE m: Bottom Est. Av. Depth: 21

DIRECTION OF SET °true: 205° SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: light chop TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: 46 m warp and spreaders.

SOUNDER SUMMARY: Light to heavy spotting. 5.5 m hump in middle of tow.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 16 SET/HAUL NO. 32

LOCATION: 9.9 mi E of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 3.0' Long. 131° 25.9'

END: Lat. 54° 2.2' Long. 131° 25.9'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1545 DURATION (min): 15

BOTTOM DEPTH (m): Start: 20 End: 22 Est. Av. Depth: 20

NET DEPTH RANGE m: Bottom Est. Av. Depth: 20

DIRECTION OF SET °true: 180 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 10-15 RECORDER: KW

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS:

SOUNDER SUMMARY: Light scatter surface - 3.7 m. Very light spotting off bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 16 SET/HAUL NO. 33

LOCATION: 8.2 mi. E of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 2.4' Long. 131° 28.4'

END: Lat. 54° 1.5' Long. 131° 28.4'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1755 DURATION (min): 15

BOTTOM DEPTH (m): Start: 11 End: 9 Est. Av. Depth: 10

NET DEPTH RANGE m: Bottom Est. Av. Depth: 10

DIRECTION OF SET °true: 160° SPEED kn: 2.9 DISTANCE TRAVELLED mi. 1.0

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: W WIND SPEED: 10-15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Occasional light spotting on bottom. Scatter layer 0-3 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 17 SET/HAUL NO. 34

LOCATION: 5.4 mi SE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 05.3' Long. 131° 33.7'

END: Lat. 54° 04.7' Long. 131° 33.6'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 0807 DURATION (min): 15

BOTTOM DEPTH (m): Start: 14.6 End: 20.1 Est. Av. Depth: 18

NET DEPTH RANGE m: Bottom Est. Av. Depth: 18

DIRECTION OF SET °true: 170 SPEED kn: 2.7 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: light chop TIDE: _____

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: MSS

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Few small spots.

Appendix table 2 (cont'd)

	Yr	Mo.	Day	
VESSEL: ARCTIC HARVESTER	DATE: 78	06	17	SET/HAUL NO. 35

LOCATION: 5.5 mi. SE Rose Pt. AREA: Hecate Strait

START: Lat. 54° 05.3' Long. 131° 33.2'

END: Lat. 54° 06.2' Long. 131° 33.3'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 0840 DURATION (min): 15

BOTTOM DEPTH (m): Start: 16.5 End: 18.3 Est. Av. Depth: 17.5

NET DEPTH RANGE m: Bottom Est. Av. Depth: 17.5

DIRECTION OF SET °true: 350° SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: light chop TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: 46 m warp and spreaders.

SOUNDER SUMMARY: Using expanded scale - few spots just off bottom.

	Yr	Mo.	Day	
VESSEL: ARCTIC HARVESTER	DATE: 78	06	17	SET/HAUL NO. 36

LOCATION: 4.5 mi SE of Rose Pt. AREA: Hecate Strait

START: Lat. 54° 5.9' Long. 131° 34.9'

END: Lat. 54° 6.4' Long. 131° 34.9'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 0920 DURATION (min): 15

BOTTOM DEPTH (m): Start: 16.5 End: 20.1 Est. Av. Depth: 18

NET DEPTH RANGE m: Bottom Est. Av. Depth: 18

DIRECTION OF SET °true: 005 SPEED kn: 2.5 DISTANCE TRAVELLED mi. 0.5

SET ON: Pre-determined WATER CONDITION: chop TIDE:

WIND DIRECTION: NW WIND SPEED: 20 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Bottom hard. 46 m warp and spreaders.

SOUNDER SUMMARY: Few small spots.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 17 SET/HAUL NO. 37

LOCATION: 2.5 mi ESE of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 1.9' Long. 131° 39.5'

END: Lat. 54° 2.5' Long. 131° 39.2'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1020 DURATION (min): 15

BOTTOM DEPTH (m): Start: 16.5 End: 9.1 Est. Av. Depth: 13

NET DEPTH RANGE m: Bottom Est. Av. Depth: 13

DIRECTION OF SET °true: 000 SPEED kn: 2.5 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: W WIND SPEED: 15-20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: 0-4 m light scattering layer (stack of fish). Very occasional spots showing on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 17 SET/HAUL NO. 38

LOCATION: 2.3 mi ESE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 2.4' Long. 131° 39.4'

END: Lat. 54° 2.3' Long. 131° 39.3'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1050 DURATION (min): 15

BOTTOM DEPTH (m): Start: 12.8 End: 12.8 Est. Av. Depth: 12.8

NET DEPTH RANGE m: Bottom Est. Av. Depth: 12.8

DIRECTION OF SET °true: 170° SPEED kn: 2.4 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: W WIND SPEED: 15-20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Occasional small spots on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 17 SET/HAUL NO. 39

LOCATION: 2.1 mi ESE of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 2.4' Long. 131° 39.5'

END: Lat. 54° 3.3' Long. 131° 39.2'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1125 DURATION (min): 15

BOTTOM DEPTH (m): Start: 9.1 End: 12.8 Est. Av. Depth: 11

NET DEPTH RANGE m: Bottom Est. Av. Depth: 11

DIRECTION OF SET °true: 010 SPEED kn: 3.2 DISTANCE TRAVELLED mi. 0.9

SET ON: Pre-determined WATER CONDITION: chop TIDE: slack

WIND DIRECTION: W WIND SPEED: 15-20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: 0-3 m light scattering layer. Occasional light spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 17 SET/HAUL NO. 40

LOCATION: 2.5 mi ESE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 2.3' Long. 131° 38.7'

END: Lat. 54° 2.8' Long. 131° 38.5'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1255 DURATION (min): 15

BOTTOM DEPTH (m): Start: 16.5 End: 16.5 Est. Av. Depth: 16.5

NET DEPTH RANGE m: Bottom Est. Av. Depth: 16.5

DIRECTION OF SET °true: 010 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: Heavy chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: "Stacking" moderate scatter layer 0-5 m. Occasional light spotting.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 17 SET/HAUL NO. 41

LOCATION: 3.1 mi ESE of Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 04.4' Long. 131° 38.2'

END: Lat. 54° 05.1' Long. 131° 38.1'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1400 DURATION (min): 8

BOTTOM DEPTH (m): Start: 16.5 End: 14.6 Est. Av. Depth: 15

NET DEPTH RANGE m: Bottom Est. Av. Depth: 15

DIRECTION OF SET °true: 000 SPEED kn: 4.0 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Tow time cut to 8 min. due to hard bottom.

SOUNDER SUMMARY: Light scatter 0-5 m. Occasional spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 17 SET/HAUL NO. 42

LOCATION: 2.6 mi ENE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 4.3' Long. 131° 38.9'

END: Lat. 54° 3.7' Long. 131° 39.0'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1440 DURATION (min): 15

BOTTOM DEPTH (m): Start: 11 End: 11 Est. Av. Depth: 11

NET DEPTH RANGE m: Bottom Est. Av. Depth: 11

DIRECTION OF SET °true: 180 SPEED kn: 2.8 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: 0-5 m. Light continuous scatter. Occasional spots on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 17 SET/HAUL NO. 43

LOCATION: 2.5 mi E Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 3.3' Long. 131° 38.6'

END: Lat. 54° 3.9' Long. 131° 38.3'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1550 DURATION (min): 15

BOTTOM DEPTH (m): Start: 13 End: 15 Est. Av. Depth: 14

NET DEPTH RANGE m: Bottom Est. Av. Depth: 14

DIRECTION OF SET °true: 010 SPEED kn: 2.7 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Very occasional spotting on bottom. Light scatter 0-3 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 17 SET/HAUL NO. 44

LOCATION: 1.8 mi SSE Rose Pt. AREA: Hecate Strait

START: Lat. 54° 7.7' Long. 131° 38.5'

END: Lat. 54° 8.2' Long. 131° 38.5'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1815 DURATION (min): 15

BOTTOM DEPTH (m): Start: 9 End: 9 Est. Av. Depth: 9

NET DEPTH RANGE m: Bottom Est. Av. Depth: 9

DIRECTION OF SET °true: 000 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Unable to get as close to beach as in 1977 due to commercial crab gear.

SOUNDER SUMMARY: 0-3 m light scatter. Occasional spotting on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 17 SET/HAUL NO. 45

LOCATION: 1.6 mi SE Rose Pt. AREA: Hecate Strait

START: Lat. 54° 8.2' Long. 131° 38.0'

END: Lat. 54° 6.4' Long. 131° 38.4'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1845 DURATION (min): 30

BOTTOM DEPTH (m): Start: 11 End: 13 Est. Av. Depth: 12

NET DEPTH RANGE m: Bottom Est. Av. Depth: 12

DIRECTION OF SET °true: 185 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 1.5

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: 0-3 m light scatter. 11 m - bottom "stacking" occasional spotting.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 18 SET/HAUL NO. 46

LOCATION: 2.0 mi NE Rose Pt. AREA: Hecate Strait

START: Lat. 54° 10.7' Long. 131° 38.0'

END: Lat. 54° 10.6' Long. 131° 35.5'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 0820 DURATION (min): 30

BOTTOM DEPTH (m): Start: 11 End: 13 Est. Av. Depth: 12

NET DEPTH RANGE m: Bottom Est. Av. Depth: 12

DIRECTION OF SET °true: 95° SPEED kn: 3.5 DISTANCE TRAVELLED mi. 1.5

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Had to move tow slightly due to commercial crab gear. Many crab strings set off of Rose Spit.

SOUNDER SUMMARY: Light occasional spotting showing on the expanded scale.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 18 SET/HAUL NO. 47

LOCATION: 3.0 mi NE Rose Pt. AREA: Hecate Strait

START: Lat. 54° 11.3' Long. 131° 36.4'

END: Lat. 54° 10.9' Long. 131° 37.2'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 0910 DURATION (min): 15

BOTTOM DEPTH (m): Start: 12.8 End: 14.6 Est. Av. Depth: 14

NET DEPTH RANGE m: Bottom Est. Av. Depth: 14

DIRECTION OF SET °true: 235 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: 0-3 m light occasional scatter. Occasional light spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 18 SET/HAUL NO. 48

LOCATION: 4.5 mi E Rose Pt. AREA: Hecate Strait

START: Lat. 54° 08.5' Long. 131° 32.5'

END: Lat. 54° 07.5' Long. 131° 32.5'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1005 DURATION (min): 15

BOTTOM DEPTH (m): Start: 20 End: 20 Est. Av. Depth: 20

NET DEPTH RANGE m: Bottom Est. Av. Depth: 20

DIRECTION OF SET °true: 180 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 1.1

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: NW WIND SPEED: 10 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: 0-3 m light scatter. Occasional moderate spotting on bottom Two large "stack" type spots on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 18 SET/HAUL NO. 49

LOCATION: 8.1 mi. E Rose Pt. AREA: Hecate Strait

START: Lat. 54° 09.9' Long. 131° 26.5'

END: Lat. 54° 09.2' Long. 131° 26.5'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1115 DURATION (min): 15

BOTTOM DEPTH (m): Start: 27.4 End: 25.6 Est. Av. Depth: 26.0

NET DEPTH RANGE m: Bottom Est. Av. Depth: 26.0

DIRECTION OF SET °true: 170 SPEED kn: 2.9 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: light chop TIDE:

WIND DIRECTION: NW WIND SPEED: 15-20 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: 46 m warp & spreaders. Course changes due to commercial crab gear. Picked up one trap. 5 large males in trap.

SOUNDER SUMMARY: Undulating bottom - few small spots.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 18 SET/HAUL NO. 50

LOCATION: 11.2 mi E Rose Pt. AREA: Hecate Strait

START: Lat. 54° 9.9' Long. 131° 21.4'

END: Lat. 54° 9.1' Long. 131° 21.7'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1245 DURATION (min): 15

BOTTOM DEPTH (m): Start: 25.6 End: 27.4 Est. Av. Depth: 26

NET DEPTH RANGE m: Bottom Est. Av. Depth: 26

DIRECTION OF SET °true: 190 SPEED kn: 2.7 DISTANCE TRAVELLED mi. 0.9

SET ON: Pre-determined WATER CONDITION: chop TIDE:

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: 46 m warp & spreaders.

SOUNDER SUMMARY: Light to moderate spotting off bottom on expanded scale.

Appendix table 2 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 18 SET/HAUL NO. 51

LOCATION: 8.5 mi ESE Rose Pt. AREA: Hecate Strait

START: Lat. 54° 07.0' Long. 131° 26.3'

END: Lat. 54° 06.4' Long. 131° 26.4'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1340 DURATION (min): 15

BOTTOM DEPTH (m): Start: 24 End: 24 Est. Av. Depth: 24

NET DEPTH RANGE m: Bottom Est. Av. Depth: 24

DIRECTION OF SET °true: 180 SPEED kn: 2.9 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: 0-3 m light scatter layer. Occasional spotting on bottom.

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 18 SET/HAUL NO. 52

LOCATION: 9.5 mi ESE Rose Pt. AREA: Hecate Strait

START: Lat. 54° 06.7' Long. 131° 24.6'

END: Lat. 54° 07.2' Long. 131° 24.2'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1415 DURATION (min): 15

BOTTOM DEPTH (m): Start: 26 End: 24 Est. Av. Depth: 25

NET DEPTH RANGE m: Bottom Est. Av. Depth: 25

DIRECTION OF SET °true: 020 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.7

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Occasional light spotting on bottom. Few "stacks" (probably sandlance).

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 19 SET/HAUL NO. 53

LOCATION: 9.5 mi E Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 2.6' Long. 131° 26.6'

END: Lat. 54° 1.5' Long. 131° 26.2'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 0103 DURATION (min): 30

BOTTOM DEPTH (m): Start: 22 End: 22 Est. Av. Depth: 22

NET DEPTH RANGE m: Bottom Est. Av. Depth: 22

DIRECTION OF SET °true: 160 SPEED kn: 2.8 DISTANCE TRAVELLED mi. 1.4

SET ON: Pre-determined WATER CONDITION: chop TIDE:

WIND DIRECTION: NW WIND SPEED: 20-25 RECORDER: MSS

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: 46 m warp and spreaders.

SOUNDER SUMMARY: Light scatter layer, 0-3.7 m. Occasional spots 5-11 m. Occasional spots off bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 19 SET/HAUL NO. 54

LOCATION: 6.3 mi E Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 4.2' Long. 131° 32.2'

END: Lat. 54° 4.7' Long. 131° 32.4'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1025 DURATION (min): 15

BOTTOM DEPTH (m): Start: 18 End: 18 Est. Av. Depth: 18

NET DEPTH RANGE m: Bottom Est. Av. Depth: 18

DIRECTION OF SET °true: 350 SPEED kn: 2.9 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: chop-swell TIDE: flood

WIND DIRECTION: NW WIND SPEED: 30-35 RECORDER: KW

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS:

SOUNDER SUMMARY: 0-3 m light scatter layer. Nothing showing on bottom. After 10 min. in tow continuous light spotting on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 19 SET/HAUL NO. 55

LOCATION: 7.1 mi ENE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 04.6' Long. 131° 31.1'

END: Lat. 54° 05.2' Long. 131° 30.6'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1100 DURATION (min): 15

BOTTOM DEPTH (m): Start: 27 End: 27 Est. Av. Depth: 27

NET DEPTH RANGE m: Bottom Est. Av. Depth: 17

DIRECTION OF SET °true: 035 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 0.6

SET ON: Pre-determined WATER CONDITION: chop-swell TIDE: flood

WIND DIRECTION: NW WIND SPEED: 30-35 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Moderate continuous spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 19 SET/HAUL NO. 56

LOCATION: 7.3 mi SE Rose Pt. AREA: Hecate Strait

START: Lat. 54° 05.0' Long. 131° 30.1'

END: Lat. 54° 06.6' Long. 131° 30.0'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1230 DURATION (min): 30

BOTTOM DEPTH (m): Start: 18 End: 18 Est. Av. Depth: 18

NET DEPTH RANGE m: Bottom Est. Av. Depth: 18

DIRECTION OF SET °true: 005 SPEED kn: 3.2 DISTANCE TRAVELLED mi. 1.6

SET ON: Pre-determined WATER CONDITION: chop-swell TIDE: flood

WIND DIRECTION: NW WIND SPEED: _____ RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: After 20 min. course altered due to commercial crab gear.

SOUNDER SUMMARY: Occasional moderate spotting 6 m to bottom. Occasional stacks.

Appendix table 2 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 19 SET/HAUL NO. 57

LOCATION: 8.2 mi SE Rose Pt. AREA: Hecate Strait

START: Lat. 54° 4.7' Long. 131° 29.5'

END: Lat. 54° 4.1' Long. 131° 27.4'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1330 DURATION (min): 30

BOTTOM DEPTH (m): Start: 14.6 End: 11.0 Est. Av. Depth: 13

NET DEPTH RANGE m: Bottom Est. Av. Depth: 13

DIRECTION OF SET °true: 140 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 1.5

SET ON: Pre-determined WATER CONDITION: chop-swell TIDE: slack

WIND DIRECTION: NW WIND SPEED: 15-20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Alter course 20 min into tow due to commercial crab gear.

SOUNDER SUMMARY: Occasional spotting on bottom. "Stacks" showing occasionally 0-9 m.

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 19 SET/HAUL NO. 58

LOCATION: 13.7 mi WSW Warrior Rks AREA: Hecate Strait

START: Lat. 54° 00.9' Long. 131° 13.1'

END: Lat. 54° 00.0' Long. 131° 13.5'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1515 DURATION (min): 30

BOTTOM DEPTH (m): Start: 33 End: 36 Est. Av. Depth: 34

NET DEPTH RANGE m: Bottom Est. Av. Depth: 34

DIRECTION OF SET °true: 010 SPEED kn: 2.7 DISTANCE TRAVELLED mi. 1.3

SET ON: Pre-determined WATER CONDITION: chop-swell TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Continuous spotting on bottom (expanded scale). Occasional "stacks" 0-10 m.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 19 SET/HAUL NO. 59

LOCATION: 12.7 mi WSW Warrior Rks. AREA: Hecate Strait

START: Lat. 54° 1.0' Long. 131° 12.0'

END: Lat. 54° 59.2 Long. 131° 13.6'

GEAR: 70' Gulf Semi-Balloon START TIME (PDT) : 1600 DURATION (min): 30

BOTTOM DEPTH (m): Start: 35 End: 35 Est. Av. Depth: 36

NET DEPTH RANGE m: Bottom Est. Av. Depth: 36

DIRECTION OF SET °true: 210 SPEED kn: 2.7 DISTANCE TRAVELLED mi. 1.3

SET ON: Pre-determined WATER CONDITION: chop-swell TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Occasional spotting on bottom. Large "stack" 0-36 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 19 SET/HAUL NO. 60

LOCATION: 8.7 mi W Warrior Rks. AREA: Hecate Strait

START: Lat. 54° 1.7' Long. 131° 05.5'

END: Lat. 54° 2.9' Long. 131° 05.7'

GEAR: 70' Gulf Semi-Balloon START TIME: (PDT) : 1805 DURATION (min): 30

BOTTOM DEPTH (m): Start: 31 End: 27 Est. Av. Depth: 29

NET DEPTH RANGE m: Bottom Est. Av. Depth: 29

DIRECTION OF SET °true: 350 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 1.5

SET ON: Pre-determined WATER CONDITION: chop-swell TIDE: ebb

WIND DIRECTION: NW WIND SPEED: 15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Nothing showing surface or midwater. Small clumps tight on bottom. Only occasional light spots on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 20 SET/HAUL NO. 61

LOCATION: 3.3 mi NE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 05.2' Long. 131° 38.6'

END: Lat. 54° 02.8 Long. 131° 39.1'

GEAR: West coast flat trawl START TIME (PDT) : 0750 DURATION (min): 15

BOTTOM DEPTH (m): Start: 11 End: 9.1 Est. Av. Depth: 10

NET DEPTH RANGE m: Bottom Est. Av. Depth: 10

DIRECTION OF SET °true: 190 SPEED kn: 3.7 DISTANCE TRAVELLED mi. 2.2

SET ON: Pre-determined WATER CONDITION: light chop TIDE: flood

WIND DIRECTION: W WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Light, continuous spotting off bottom on expanded scale.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 20 SET/HAUL NO. 62

LOCATION: 2.6 mi ESE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 2.2' Long. 131° 38.2'

END: Lat. 54° 1.4' Long. 131° 38.4'

GEAR: West coast flat trawl START TIME: (PDT) : 0830 DURATION (min): 30

BOTTOM DEPTH (m): Start: 11 End: 7.3 Est. Av. Depth: 9

NET DEPTH RANGE m: Bottom Est. Av. Depth: 9

DIRECTION OF SET °true: 170 SPEED kn: 2.6 DISTANCE TRAVELLED mi. 1.3

SET ON: Pre-determined WATER CONDITION: light chop TIDE: flood

WIND DIRECTION: W WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Light scattering occasionally 4-7 m. Occasional light spotting on bottom (expanded scale).

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 19 SET/HAUL NO. 63

LOCATION: 3.8 mi ESE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 1.6' Long. 131° 36.7'

END: Lat. 54° 1.1' Long. 131° 36.4'

GEAR: West coast flat trawl START TIME (PDT) : 0950 DURATION (min): 18

BOTTOM DEPTH (m): Start: 9.1 End: 9.1 Est. Av. Depth: 9.1

NET DEPTH RANGE m: Bottom Est. Av. Depth: 9.1

DIRECTION OF SET °true: 150 SPEED kn: 3.7 DISTANCE TRAVELLED mi. 0.8

SET ON: Pre-determined WATER CONDITION: light chop TIDE: _____

WIND DIRECTION: W WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 46 m warp. Net hung up after 18 min. Tore out port wing and belly. Changed nets for next tow.

SOUNDER SUMMARY: Continuous moderate spotting 9 m to bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 21 SET/HAUL NO. 64

LOCATION: 8.3 mi W Warrior Rks. AREA: Hecate Strait

START: Lat. 54° 04.1' Long. 131° 04.3'

END: Lat. 54° 05.2' Long. 131° 03.6'

GEAR: West coast flat trawl START TIME: (PDT) : 0910 DURATION (min): 30

BOTTOM DEPTH (m): Start: 84 End: 91 Est. Av. Depth: 87

NET DEPTH RANGE m: Bottom Est. Av. Depth: 87

DIRECTION OF SET °true: 010 SPEED kn: 3.7 DISTANCE TRAVELLED mi. 1.6

SET ON: Sounder WATER CONDITION: swell TIDE: flood

WIND DIRECTION: W WIND SPEED: 20-25 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Pollock showing on bottom.

SOUNDER SUMMARY: Some stacks, 0-46 m. 73 m to bottom moderate continuous spotting (on expanded bottom [3 m] heavy, continuous spotting showing).

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 21 SET/HAUL NO. 65

LOCATION: 5 mi ESE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 01.4' Long. 131° 34.7'

END: Lat. 54° 02.8' Long. 131° 35.1'

GEAR: West coast flat trawl START TIME (PDT) : 1255 DURATION (min): 30

BOTTOM DEPTH (m): Start: 18 End: 20 Est. Av. Depth: 19

NET DEPTH RANGE m: Bottom Est. Av. Depth: 19

DIRECTION OF SET °true: 350 SPEED kn: 3.7 DISTANCE TRAVELLED mi. 1.6

SET ON: Pre-determined WATER CONDITION: swell TIDE: flood

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Occasional light spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 21 SET/HAUL NO. 66

LOCATION: 6.3 mi ESE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 00.2' Long. 131° 32.2'

END: Lat. 54° 58.9' Long. 131° 32.4'

GEAR: West coast flat trawl START TIME: (PDT) : 1400 DURATION (min): 30

BOTTOM DEPTH (m): Start: 20 End: 17 Est. Av. Depth: 18

NET DEPTH RANGE m: Bottom Est. Av. Depth: 18

DIRECTION OF SET °true: 180 SPEED kn: 3.4 DISTANCE TRAVELLED mi. 1.7

SET ON: Pre-determined WATER CONDITION: chop-swell TIDE: flood

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 46 m warp. Net possibly flown.

SOUNDER SUMMARY: Occasional light spotting on bottom.

Appendix table 2 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 21 SET/HAUL NO. 67

LOCATION: 7.9 mi ESE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 00.7' Long. 131° 29.8'

END: Lat. 54° 02.1' Long. 131° 31.1'

GEAR: West coast flat trawl START TIME (PDT) : 1515 DURATION (min): 30

BOTTOM DEPTH (m): Start: 18 End: 17 Est. Av. Depth: 17

NET DEPTH RANGE m: Bottom Est. Av. Depth: 17

DIRECTION OF SET °true: 330 SPEED kn: 3.2 DISTANCE TRAVELLED mi. 1.6

SET ON: Pre-determined WATER CONDITION: chop-swell TIDE: high slack

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Two floats missing off each wing.

SOUNDER SUMMARY: After 15 min, occasional light spotting showing on expanded scale.

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 21 SET/HAUL NO. 68

LOCATION: 11.9 mi E Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 00.9' Long. 131° 27.9'

END: Lat. 54° 59.6' Long. 131° 28.2'

GEAR: West coast flat trawl START TIME: (PDT) : 1745 DURATION (min): 15

BOTTOM DEPTH (m): Start: 20 End: 22 Est. Av. Depth: 21

NET DEPTH RANGE m: Bottom Est. Av. Depth: 21

DIRECTION OF SET °true: 190 SPEED kn: 3.3 DISTANCE TRAVELLED mi. 1.3

SET ON: Pre-determined WATER CONDITION: swell TIDE: ebb

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS:

SOUNDER SUMMARY: Light occasional spotting on bottom. Occasional scattering 0-11 m.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 22 SET/HAUL NO. 69

LOCATION: 3.3 mi N.E. Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 04' Long. 131° 38'

END: Lat. 54° 06.9' Long. 131° 37.4'

GEAR: West coast flat trawl START TIME (PDT) : 0815 DURATION (min): 45

BOTTOM DEPTH (m): Start: 10 End: 13 Est. Av. Depth: 12

NET DEPTH RANGE m: Bottom Est. Av. Depth: 12

DIRECTION OF SET °true: 005 SPEED kn: 3.6 DISTANCE TRAVELLED mi. 3.0

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 10 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Occasional light spotting showing on bottom. Nothing showing midwater. After 30 min moderate spotting showing on sounder.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 22 SET/HAUL NO. 70

LOCATION: 5.4 mi E Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 03.9' Long. 131° 33.4'

END: Lat. 54° 04.0' Long. 131° 33.3'

GEAR: West coast flat trawl START TIME: (PDT) : 1615 DURATION (min): 15

BOTTOM DEPTH (m): Start: 20 End: 18 Est. Av. Depth: 19

NET DEPTH RANGE m: Bottom Est. Av. Depth: 19

DIRECTION OF SET °true: 010 SPEED kn: 3.3 DISTANCE TRAVELLED mi. 0.9

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 46 m warp length.

SOUNDER SUMMARY: Very light occasional spotting off bottom.

Appendix table 2 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 22 SET/HAUL NO. 71

LOCATION: 6.5 mi ENE Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 6.9' Long. 131° 32.8'

END: Lat. 54° 6.4' Long. 131° 33.8'

GEAR: West coast flat trawl START TIME (PDT) : 1740 DURATION (min): 30

BOTTOM DEPTH (m): Start: 20 End: 22 Est. Av. Depth: 21

NET DEPTH RANGE m: Bottom Est. Av. Depth: 21

DIRECTION OF SET °true: 310 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 1.0

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 46 m warp.

SOUNDER SUMMARY: Light occasional spotting on bottom. 0-13 m "stacks" continuous throughout tow.

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 23 SET/HAUL NO. 72

LOCATION: 6.4 mi E Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 04.3' Long. 131° 31.9'

END: Lat. 54° 02.8' Long. 131° 31.9'

GEAR: West coast flat trawl START TIME: (PDT) : 0810 DURATION (min): 30

BOTTOM DEPTH (m): Start: 17 End: 13 Est. Av. Depth: 15

NET DEPTH RANGE m: Bottom Est. Av. Depth: 15

DIRECTION OF SET °true: 180 SPEED kn: 3.6 DISTANCE TRAVELLED mi. 1.6

SET ON: Pre-determined WATER CONDITION: chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 10-15 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 46 m warp.

SOUNDER SUMMARY: Light "stacks", 0-13 m showing occasionally throughout tow, possibly sandlance. Very light occasional spotting on bottom. After 15 min. in tow, large school of fish showed botomm to 4 m.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 23 SET/HAUL NO. 73

LOCATION: 7.5 mi E Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 04.3' Long. 131° 30.2'

END: Lat. 54° 04.9' (54° 05.7') Long. 131° 29.9' (131° 29.5')

GEAR: West coast flat trawl START TIME (PDT) : 0915 DURATION (min): 35

BOTTOM DEPTH (m): Start: 13 End: 9.1 Est. Av. Depth: 11

NET DEPTH RANGE m: Bottom Est. Av. Depth: 11

DIRECTION OF SET °true: 010 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 1.5

SET ON: Pre-determined WATER CONDITION: chop/swell TIDE: ebb

WIND DIRECTION: W WIND SPEED: 15-20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Course altered at 5 min. mark due to commercial crab gear. Hauled after 5 min. to free crab gear from net.

SOUNDER SUMMARY: Occasional light spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 23 SET/HAUL NO. 74

LOCATION: 7.9 mi ESE Rose Pt. AREA: Hecate Strait

START: Lat. 54° 6.2' Long. 131° 27.7'

END: Lat. 54° 8.7' Long. 131° 27.0'

GEAR: West coast flat trawl START TIME: (PDT) : 1035 DURATION (min): 30

BOTTOM DEPTH (m): Start: 17 End: 18 Est. Av. Depth: 17

NET DEPTH RANGE m: Bottom Est. Av. Depth: 17

DIRECTION OF SET °true: 010 SPEED kn: 3.6 DISTANCE TRAVELLED mi. 2.0

SET ON: Pre-determined WATER CONDITION: chop/swell TIDE: ebb/slack

WIND DIRECTION: W WIND SPEED: 15-20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 46 m warp.

SOUNDER SUMMARY: 0-15 m heavy continuous scattering. Light occasional spotting on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 23 SET/HAUL NO. 75

LOCATION: 10.3 mi E Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 04.2' Long. 131° 25.6'

END: Lat. 54° 02.7' Long. 131° 25.7'

GEAR: West coast flat trawl START TIME (PDT) : 1235 DURATION (min): 30

BOTTOM DEPTH (m): Start: 20 End: 20 Est. Av. Depth: 20

NET DEPTH RANGE m: Bottom Est. Av. Depth: 20

DIRECTION OF SET °true: 185 SPEED kn: 3.4 DISTANCE TRAVELLED mi. 1.7

SET ON: Pre-determined WATER CONDITION: chop TIDE: flood

WIND DIRECTION: W WIND SPEED: 15-20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: Plankton tow made.

REMARKS: 46 m warp.

SOUNDER SUMMARY: Moderate, continuous spotting on bottom. 0-11 m heavy, continuous scattering layer.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 23 SET/HAUL NO. 76

LOCATION: 14.5 mi E Argonaut Hill AREA: Hecate Strait

START: Lat. 54° 02.7' Long. 131° 18.1'

END: Lat. 54° 01.1' Long. 131° 18.7'

GEAR: West coast flat trawl START TIME: (PDT) : 1400 DURATION (min): 30

BOTTOM DEPTH (m): Start: 25 End: 31 Est. Av. Depth: 27

NET DEPTH RANGE m: Bottom Est. Av. Depth: 27

DIRECTION OF SET °true: 190 SPEED kn: 3.1 DISTANCE TRAVELLED mi. 1.5

SET ON: Pre-determined WATER CONDITION: chop/swell TIDE: flood

WIND DIRECTION: W WIND SPEED: 20 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: _____

SOUNDER SUMMARY: Light spotting 5-13 m. Light spotting off bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 24 SET/HAUL NO. 77

LOCATION: 6.4 mi W Warrior Rks. AREA: Hecate Strait

START: Lat. 54° 03.1' Long. 131° 1.7'

END: Lat. 54° 02.6' Long. 131° 01.0'

GEAR: West coast flat trawl START TIME (PDT) : 0915 DURATION (min): 90

BOTTOM DEPTH (m): Start: 93 End: 87.8 Est. Av. Depth: 88

NET DEPTH RANGE m: Bottom Est. Av. Depth: 88

DIRECTION OF SET °true: 160 SPEED kn: 3.5 DISTANCE TRAVELLED mi. 5.2

SET ON: Sounder WATER CONDITION: light chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Made two course changes to stay on fish on sounder.

SOUNDER SUMMARY: Occasonal moderate spotting, 64-82 m. Occasional light spotting, and light scattering layer, 37-64 m. Fish on bottom on 50 fath (91 m) edge.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 24 SET/HAUL NO. 78

LOCATION: 6.5 mi W Warrior Rks. AREA: Hecate Strait

START: Lat. 54° 03.5' Long. 131° 02'

END: Lat. 54° 04.5' Long. 131° 03'

GEAR: Diamond 5 START TIME: (PDT) : 1340 DURATION (min): 60

BOTTOM DEPTH (m): Start: 95 End: 86.8 Est. Av. Depth: 90

NET DEPTH RANGE m: 86 m Est. Av. Depth: 86

DIRECTION OF SET °true: 335 SPEED kn: 3.9 DISTANCE TRAVELLED mi. 3.1

SET ON: Sounder WATER CONDITION: ripple TIDE: flood

WIND DIRECTION: _____ WIND SPEED: 0 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Fish seen going into net. Made turnabout at 15 min. mark of tow to continue over fish.

SOUNDER SUMMARY: Light spotting throughout, bottom to 64 m.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 24 SET/HAUL NO. 79

LOCATION: 7.4 mi W Warrior Rks. AREA: Hecate Strait

START: Lat. 54° 04' Long. 131° 03.5'

END: Lat. 54° 08' Long. 131° 03.5'

GEAR: Diamond 5 START TIME (PDT) : 1540 DURATION (min): 60

BOTTOM DEPTH (m): Start: 87.8 End: 97 Est. Av. Depth: 95

NET DEPTH RANGE m: 39 Est. Av. Depth: 39

DIRECTION OF SET °true: 000 SPEED kn: 4.7 DISTANCE TRAVELLED mi. 4.2

SET ON: Sounder WATER CONDITION: ripple TIDE: flood

WIND DIRECTION: WIND SPEED: 0 RECORDER: KW

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: Warp 137 m.

SOUNDER SUMMARY: Light spotting, 37 m to bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 24 SET/HAUL NO. 80

LOCATION: 7.2 mi WNW Warrior Rks. AREA: Hecate Strait

START: Lat. 54° 06.0' Long. 131° 02.5'

END: Lat. 54° 02.0' Long. 131° 02.0'

GEAR: Diamond 5 START TIME: (PDT) : 1340 DURATION (min): 60

BOTTOM DEPTH (m): Start: 100.6 End: 93.3 Est. Av. Depth: 97

NET DEPTH RANGE m: surface to 18 m Est. Av. Depth: 18

DIRECTION OF SET °true: 175 SPEED kn: 4.4 DISTANCE TRAVELLED mi. 4.2

SET ON: Pre-determined WATER CONDITION: ripple TIDE: ebb

WIND DIRECTION: WIND SPEED: 0 RECORDER: KW

TTM: TDM: BT: OTHER OCEANOGRAPHIC DATA:

REMARKS: First 20 min., gear towed on surface.

SOUNDER SUMMARY: 46 m to bottom moderate continuous spotting. Moderate occasional spotting showing on bottom.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 25 SET/HAUL NO. 81

LOCATION: 7.3 mi WNW White Rocks AREA: Hecate Strait

START: Lat. 53° 40.6' Long. 130° 45.5'

END: Lat. 53° 35.4' Long. 130° 44.2'

GEAR: Diamond 5 START TIME (PDT) : 0830 DURATION (min): 90

BOTTOM DEPTH (m): Start: 137 End: 174 Est. Av. Depth: 150

NET DEPTH RANGE m: 73 Est. Av. Depth: 73

DIRECTION OF SET °true: 185 SPEED kn: 3.4 DISTANCE TRAVELLED mi. 4.6

SET ON: Sounder WATER CONDITION: calm TIDE: ebb

WIND DIRECTION: _____ WIND SPEED: 0 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: Target 64-82 m on Sounder. Some fish seen going under net.

SOUNDER SUMMARY: 64-82 m - light, occasional moderate spotting. Nothing showing on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 25 SET/HAUL NO. 82

LOCATION: Principe Ch. AREA: Hecate Strait

START: Lat. 53° 35.8' Long. 130° 17.6'

END: Lat. 53° 36.7' Long. 130° 20.4'

GEAR: Diamond 5 START TIME: (PDT) : 1500 DURATION (min): 30

BOTTOM DEPTH (m): Start: 329 End: 285 Est. Av. Depth: 300

NET DEPTH RANGE m: 146 Est. Av. Depth: 146

DIRECTION OF SET °true: 300 SPEED kn: 3.0 DISTANCE TRAVELLED mi. 1.6

SET ON: Sounder WATER CONDITION: ripple TIDE: flood

WIND DIRECTION: NW WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 412 warp. Didn't fish deeper due to steepness & width of channel.

SOUNDER SUMMARY: Light moderate continuous spotting 91-164 m.

Appendix table 2 (cont'd)

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 25 SET/HAUL NO. 83

LOCATION: 2.5 mi SE Dupont Island AREA: Caamano Sound

START: Lat. 52° 56.4' Long. 129° 22.3'

END: Lat. 52° 54.7' Long. 129° 27.4'

GEAR: Diamond 5 START TIME (PDT) : 0750 DURATION (min): 45

BOTTOM DEPTH (m): Start: 207 End: 283 Est. Av. Depth: dropped steadily

NET DEPTH RANGE m: 41 Est. Av. Depth: 41

DIRECTION OF SET °true: 240 SPEED kn: 4.0 DISTANCE TRAVELLED mi. 3.5

SET ON: Pre-determined WATER CONDITION: calm TIDE: ebb

WIND DIRECTION: _____ WIND SPEED: _____ RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 91 to 137 m warp.

SOUNDER SUMMARY: Light spotting surface to 110 m throughout tow.

VESSEL: ARCTIC HARVESTER DATE: Yr 78 Mo. 06 Day 26 SET/HAUL NO. 84

LOCATION: 3 mi NW Rennison Island AREA: Caamano Sound

START: Lat. 52° 52.2' Long. 129° 29.1'

END: Lat. 52° 53.1' Long. 129° 22.0'

GEAR: Diamond 5 START TIME: (PDT) : 1330 DURATION (min): 60

BOTTOM DEPTH (m): Start: 209 End: 220 Est. Av. Depth: dropped steadily

NET DEPTH RANGE m: 22 Est. Av. Depth: 22

DIRECTION OF SET °true: 080 SPEED kn: 4.6 DISTANCE TRAVELLED mi. 4.5

SET ON: Pre-determined WATER CONDITION: calm TIDE: flood

WIND DIRECTION: _____ WIND SPEED: 0 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 91 m warp.

SOUNDER SUMMARY: Light occasional spotting 64-91 m. On gain 10, faint scattering 0-27 m.

Appendix table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 27 SET/HAUL NO. 85

LOCATION: 2.1 mi SW Susan Rock AREA: Milbanke Sound

START: Lat. 52° 16.2' Long. 128° 33.1'

END: Lat. 52° 12.7' Long. 128° 36.3'

GEAR: Diamond 5 START TIME (PDT) : 1030 DURATION (min): 60

BOTTOM DEPTH (m): Start: 278 End: 232 Est. Av. Depth: Variable

NET DEPTH RANGE m: 18 Est. Av. Depth: 18

DIRECTION OF SET °true: 210 SPEED kn: 4.0 DISTANCE TRAVELLED mi. 3.5

SET ON: Sounder WATER CONDITION: ripple TIDE: ebb

WIND DIRECTION: W WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 91 m warp.

SOUNDER SUMMARY: Occasional spotting 0-128 m. 65-82 m after 45 min, school of herring showing.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 06 27 SET/HAUL NO. 86

LOCATION: 3 mi W Wurtele Is. AREA: Milbanke Sound

START: Lat. 52° 12.2' Long. 128° 36.1'

END: Lat. 52° 08.1' Long. 128° 37.0'

GEAR: Diamond 5 START TIME: (PDT) : 1235 DURATION (min): 60

BOTTOM DEPTH (m): Start: 230 End: 216 Est. Av. Depth: 225

NET DEPTH RANGE m: 46 Est. Av. Depth: 46

DIRECTION OF SET °true: 190 SPEED kn: 3.8 DISTANCE TRAVELLED mi. 4.2

SET ON: Sounder WATER CONDITION: light chop TIDE: ebb

WIND DIRECTION: W WIND SPEED: 5 RECORDER: KW

TTM: _____ TDM: _____ BT: _____ OTHER OCEANOGRAPHIC DATA: _____

REMARKS: 137 m warp.

SOUNDER SUMMARY: Light spotting 82-119 m. School of fish at 100 m near end of tow.

Appendix table 3. Species composition by set, ARCTIC HARVESTER, August 1977.

Set no.	1		2		3		4		5	
Estimated Total catch (kg)	14		182		1510		1200		800	
Duration (min)	30		30		30		30		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock						12		1		
Spiny dogfish			29	20	1261	685	850	550	380	179
Ratfish									50	
Skate (sp)										
Black skate										
Blue skate					9		136			
Longnose skate										
Soupfin shark							30	1		
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring	9	83	11	95	4.5		2			
Sandlance	2	200								
Smelt										
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout										
Sturgeon poacher					2					
Mosshead warbonnet										

Appendix table 3 (cont'd)

Set no.	1		2		3		4		5	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sculpin (sp)										
Great sculpin							tr		tr	
Red Irish lord										
Staghorn sculpin										
Lingcod										
Pacific cod										
Sablefish						1			2	81
Tomcod										
Greenling (sp)										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole										
C - O sole										
Dover sole										
English sole										
Flathead sole										
Halibut										
Petrale sole										
Rex sole										

Appendix table 3 (cont'd)

Set no.	1		2		3		4		5	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Rock sole	7				68		113		11	
Sand sole					23		23		7	
Starry flounder							18			
Cancer branneri						1				
Cancer gracilis						10		4		
Cancer oregonensis			tr							
Cancer productus						3		9	tr	
Cancer magister						2		4	tr	
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab			tr							
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis										
Crangon alaskensis										
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)										
Cockle					2					
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hyabella										

Appendix table 3 (cont'd)

Set no.	1		2		3		4		5	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Polinices										
Natica										
Starfish (unidentified)			135		4.5					
Sunstars									tr	
Pisaster					23				68	
Leather stars										
Spisula										
Sea pens					113				227	
Sand dollars										
Green urchins										
Sponge										
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Coral										
Jellyfish	3									

Appendix table 3 (cont'd)

Set no.	6		7		8		9		10	
Estimated Total catch (kg)	50		3400		20		3632		910	
Duration (min)	16		30		28		30		11	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock						10				
Spiny dogfish	36	14	3390		2.3	2	3617		898	
Ratfish										
Skate (sp)	4.5								2.3	
Black skate										
Blue skate										
Longnose skate										
Soupfin shark							25	1		
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring										
Sandlance										
Smelt										
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout										
Sturgeon poacher										

Appendix table 3 (cont'd)

Set no.	6		7		8		9		10	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Mosshead warbonnet										
Sculpin (sp)					.23					
Great sculpin										
Red Irish lord										
Staghorn sculpin										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Greenling sp.										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole	1	2								
C - O sole										
Dover sole										
English sole					.25					
Flathead sole										
Halibut										
Petrale sole										

Appendix table 3 (cont'd)

Set no.	6		7		8		9		10	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Rex sole										
Rock sole					.25					
Sand sole	2.3						.9		4.5	
Starry flounder										
Cancer branneri					.1					
Cancer gracilis					.1	1		5	tr	
Cancer oregonensis										
Cancer productus					2.1	23		2		
Cancer magister	tr		tr					7	tr	
Oregonia gracilius										
Cryptolithodes typicus										
Hermit crab										
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis							.3			
Crangon alaskensis							.3			
Coonstripe shrimp							.3			
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)										
Cockle			tr				4.5		2.3	
Horse clam										
Moon snail	tr									
Razor clam										
Surf clam			tr							
Hyabella										

Appendix table 3 (cont'd)

Set no.	6		7		8		9		10	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Polinices										
Natica										
Starfish (unidentified)										
Sunstars	2.3		tr		4.5		4.5			
Pisaster	2.3									
Leather stars										
Spisula										
Sea pens	2.3		tr							
Sand dollars			tr				4.5		4.5	
Green urchins										
Sponge										
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Coral										
Jellyfish										
Tubeworms					0.9					

Appendix table 3 (cont'd)

Set no.	11		12		13		14		15	
Estimated Total catch (kg)	350		320		-		2043		2270	
Duration (min)	15		15		60		15		16	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock				4		26				
Spiny dogfish	300	216	160	90			1997		2250	
Ratfish										
Skate (sp)	.9		18						2.3	
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring				4						
Sandlance										
Smelt										
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish						1				
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish				1						
Tube snout										
Sturgeon poacher				6						
Mosshead warbonnet										
Sculpin (sp)										

Appendix table 3 (cont'd)

Set no.	11		12		13		14		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Great sculpin										
Red Irish lord										
Staghorn sculpin										
Lingcod										
Pacific cod				19						
Sablefish										
Tomcod										
Greenling sp.										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Sivergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole			9.1							
C-O sole										
Dover sole										
English sole	2.3		4.5				.5			
Flathead sole										
Halibut	17	1							7.5	1
Petrale sole										
Rex sole										
Rock sole			4.5				2.3			
Sand sole	4.5		11				2.3		0.5	

Appendix table 3 (cont'd)

Set no.	11		12		13		14		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer branneri										
Cancer gracilius	tr			3			tr			
Cancer oregonensis										
Cancer productus							tr		tr	
Cancer magister	tr			195			tr		tr	
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab										
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis										
Crangon alaskensis										
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)										
Cockle	11.3			3			tr		tr	
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hyabella										
Polinices										
Natica										
Starfish (unidentified)										
Sunstars	34						34		4.5	
Pisaster	45			9.1			17			

Appendix table 3 (cont'd)

Set no.	11		12		13		14		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Leather stars										
Spisula										
Sea pens	0.5		23				4.5		0.9	
Sand dollars	0.5									
Green urchins										
Sponge										
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Coral										
Jellyfish					18					

Appendix table 3 (cont'd)

Set no.	16		17		18		19		20	
Estimated Total catch (kg)	750		1135		681		7		30	
Duration (min)	18		15		15		16		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock			tr			4				
Spiny dogfish	700	326	342	164	40	20				
Ratfish										
Skate (sp.)	4.5		9.1		159					
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring			tr					5		
Sandlance										
Smelt										
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout										
Sturgeon poacher	0.2									
Mosshead warbonnet										
Sculpin (sp)										

Appendix table 3 (cont'd)

Set no.	16		17		18		19		20	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Great sculpin										
Red Irish lord										
Staghorn sculpin										
Lingcod										
Pacific cod		1	tr			17				
Sablefish										
Tomcod										
Greenling sp.										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole	13.6									
C-O sole										
Dover sole										
English sole	0.2									
Flathead sole										
Halibut			25	5	2	1				
Petrale sole					1					
Rex sole										
Rock sole	2.3		68		45					
Sand sole		1								

Appendix table 3 (cont'd)

Set no.	16		17		18		19		20	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Starry flounder					20					
Cancer branneri			tr					12		33
Cancer gracilis	tr			24				18		57
Cancer oregonensis										1
Cancer productus				3				1		2
Cancer magister		2								
Oregonia gracilis									tr	
Cryptolithodes typicus										
Hermit crab			tr		tr					
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp										
Crangons argis									tr	
Crangon alaskensis										
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)									tr	
Cockle										
Horse clam										
Moon snail										
Razor clam										
Surf clam									tr	
Hyabella										
Polinices										
Natica									tr	
Starfish (unidentified)			11.3		.5				tr	
Sunstars	2.3		11.3		23		tr		tr	

Appendix table 3 (cont'd)

Set no.	16		17		18		19		20	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Pisaster	2.3		227		45				tr	
Leather stars									tr	
Spisula									tr	
Sea pens	6.8		45.4		23		tr			
Sand dollars							tr			
Green urchins										
Sponge			tr		11.4					
Sea cucumbers				1						
Bryozoans										
Hydroids										
Barnacles										
Coral										
Jellyfish										
Egg cases					91					

Appendix table 3 (cont'd)

Set no.	21		22		23		24		25	
Estimated Total catch (kg)	71		325		15		114		31	
Duration (min)	15		15		4		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	69	15	228	28	10	2	109	38	31	9
Ratfish										
Skate (sp)										
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring										
Sandlance			3							1
Smelt										
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout										
Sturgeon poacher										
Mosshead warbonnet										
Sculpin (sp)										

Appendix table 3 (cont'd)

Set no.	21		22		23		24		25	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Great sculpin										
Red Irish Lord										
Staghorn sculpin										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Greenling sp										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole										
C-O sole										
Dover sole										
English sole					0.5	1				
Flathead sole										
Halibut										
Petrale sole										
Rex sole										
Rock sole										
Sand sole										

Appendix table 3 (cont'd)

Set no.	21		22		23		24		25	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Starry flounder										
Cancer branneri				16		2		1		
Cancer gracilis				35		3		5		1
Cancer oregonensis										
Cancer productus		1		3						
Cancer magister										
Oregonia gracilis										
Cryptolithodes typicus				1						
Hermit crab										
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.			tr							
Crangon argis										
Crangon alaskensis										
Coonstripe shrimp							tr			
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)	0.5		5		0.5		1			
Cockle	tr									
Horse clam	tr									
Moon snail										
Razor clam										
Surf clam										
Hyabella										
Polinices										
Natica										
Starfish (unidentified)	0.5									
Sunstars	0.5		10		4		2			

Appendix table 3 (cont'd)

Set no.	21		22		23		24		25	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Pisaster										
Leather stars							2			
Spisula										
Sea pens										
Sand dollars										
Green urchins										
Sponge	0.5									
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Jellyfish										

Appendix table 3 (cont'd)

Set no.	26		27		28		29		30	
Estimated Total catch (kg)	162		152		254		40		272	
Duration (min)	15		15		15		15		28	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	132	31	144	47	232	64	35	7	241	36
Ratfish										1
Skate (sp)										
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtonge										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring							0.2			
Sandlance							0.5			
Smelt			tr							
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout										
Sturgeon poacher										
Mosshead warbonnet										
Sculpin (sp)										

Appendix table 3 (cont'd)

Set no.	26		27		28		29		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Great sculpin										
Red Irish Lord										
Staghorn sculpin										
Lingcod								1		1
Pacific cod										
Sablefish										
Tomcod										
Greenling masked							1	5		
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole										
C-O sole										
Dover sole										
English sole	5		2		0.5		0.5		0.5	
Flathead sole										
Halibut										
Petrale sole										
Rex sole										
Rock sole	5		2		1		1		1	
Sand sole	tr		1		0.5		0.5		0.5	

Appendix table 3 (cont'd)

Set no.	26		27		28		29		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Starry flounder										
Cancer branneri					tr			2		8
Cancer gracilis		5		10	tr			5		88
Cancer oregonensis										
Cancer productus				5						
Cancer magister		1			tr					
Oregonia gracilius										
Cryptolithodes typicus										
Hermit crab										
Lithodes acquispina										
Pugettia							tr			
Telmessus							tr		tr	
Crangon sp										
Crangon argis										
Crangon alaskensis							tr		tr	
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)								3	4.5	
Cockle										
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hyabella										
Polinices										
Natica										
Starfish (unidentified)										
Sunstars			1		0.5		tr		9.1	

Appendix table 3 (cont'd)

Set no.	26		27		28		29		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Pisaster									0.9	
Leather stars										
Spisula										
Sea pens										
Sand dollars	20		2		20				13.6	
Green urchins										
Sponge										
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Jellyfish										

Appendix table 3 (cont'd)

Set no.	31		32		33		34		35	
Estimated Total catch (kg)	75		380		420		260		190	
Duration (min)	15		15		15		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock							0.2			
Spiny dogfish	32	7	342	159	409	162	255	114	184	59
Ratfish										
Skate (sp)										
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring					0.2					
Sandlance					0.2		0.2		0.5	
Smelt										
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout					tr					
Sturgeon poacher							0.1			
Mosshead warbonnet										

Appendix table 3 (cont'd)

Set no.	31		32		33		34		35	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sculpin (sp)										
Great sculpin										
Red Irish Lord										
Staghorn sculpin										
Lingcod		1								
Pacific cod			0.1					1		
Sablefish										
Tomcod										
Greenling sp.										
Rock greenling										
Whitespotted greenling		1								
Rockfish (sp.)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole									1	
C-O sole										
Dover sole										
English sole	1		1		1		0.5			
Flathead sole										
Halibut										
Petrale sole										
Rex sole										
Rock sole	2		2		2		0.5			

Appendix table 3 (cont'd)

Set no.	31		32		33		34		35	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sand sole	2		2		2		1		1	
Starry flounder										
Cancer branneri										
Cancer gracilis		49		104		19		8		
Cancer oregonensis		2								
Cancer productus				3						
Cancer magister						1			tr	
Oregonia gracilis			tr							
Cryptolithodes typicus		1								
Hermit crab										
Lithodes acquispina										
Pugettia			tr							
Telmessus										
Crangon sp.			tr							
Crangon argis										
Crangon alaskensis										
Coonstripe shrimp	tr		tr							
Pink shrimp										
Side stripe shrimp										
Squid						1				
Shells (unidentified)	11.4									
Cockle			15				1		2	
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hybella										
Polinices										
Natica										
Starfish (unidentified)										

Appendix table 3 (cont'd)

Set no.	31		32		33		34		35	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sunstars	13		10							
Pisaster	12								3	
Leather stars										
Spisula										
Sea pens										
Sand dollars			5		3		1			
Green urchins	tr									
Sponge										
Sea cucumbers										
Bryozoans	tr									
Hydroids										
Barnacles	tr									
Coral										
Jellyfish										

Appendix table 3 (cont'd)

Set no.	36		37		38		39		40	
Estimated Total catch (kg)	140		1000		330		3200		1135	
Duration (min)	15		15		17		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	107	34	965		284	82	3100		1130	
Ratfish										
Skate (sp)	0.2						15	1		
Black skate										
Blue skate										
Longnose skate										
Soupfin shark			20	1	40	2	30	1		
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring	0.2									
Sandlance										
Smelt	0.1									
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout										
Sturgeon poacher										1
Mosshead warbonnet									0.5	
Sculpin (sp)										

Appendix table 3 (cont'd)

Set no.	36		37		38		39		40	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Great sculpin										
Red Irish Lord										
Staghorn sculpin										
Lingcod										
Pacific cod										
Sablefish									0.5	3
Tomcod										
Greenling sp.										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole										
C-O sole										
Dover sole										
English sole	1									
Flathead sole										
Halibut										
Petrale sole										
Rex sole										
Rock sole										
Sand sole	1			1	2				1	

Appendix table 3 (cont'd)

Set no.	36		37		38		39		40	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Starry flounder										
Cancer branneri										
Cancer gracilis		4	tr			11		4	2	
Cancer oregonensis									tr	
Cancer productus		1						1		
Cancer magister	11			2		3		33	3	
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab										
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis										
Crangon alaskensis										
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid	1									
Shells (unidentified)										
Cockle	5				1		1			
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hyabella										
Polinices			5							
Natica										
Starfish (unidentified)										
Sunstars	15		5		2		2			

Appendix table 3 (cont'd)

Set no.	36		37		38		39		40	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Pisaster							2			
Leather stars										
Spisula										
Sea pens										
Sand dollars			5		2					
Green urchins										
Sponge										
Sea cucumber										
Bryozoans										
Hydroids										
Barnacles										
Jellyfish										

Appendix table 3 (cont'd)

Set no.	41		42		43		44		45	
Estimated Total catch (kg)	1000		100		350		4500		1816	
Duration (min)	15		15		15		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock	0.2	7								
Spiny dogfish	742		21	11	34	14	2000		416	
Ratfish										
Skate (sp)	10									
Black skate										
Blue skate			0.5							
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern Lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring	tr		3.5							
Sandlance										
Smelt										
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish				1						
Tube snout										
Sturgeon poacher	tr		0.5							
Mosshead warbonnet										

Appendix table 3 (cont'd)

Set no.	41		42		43		44		45	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sculpin (sp)										
Great sculpin										
Red Irish Lord										
Staghorn sculpin										
Lingcod								1		
Pacific cod								1		
Sablefish	1.5	38	0.5	2	2.5					
Tomcod										
Greenling sp.										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Short raker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole										
C-O sole										
Dover sole										
English sole					10					
Flathead sole										
Halibut	2	2			1.5	2				
Petrale										
Rex sole										
Rock sole	20		0.5		150		1		5	

Appendix table 3 (cont'd)

Set no.	41		42		43		44		45	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sand sole	10						9		5	
Starry flounder					2					
Cancer branneri								2		
Cancer gracilis								6		13
Cancer oregonensis										
Cancer productus								10		3
Cancer magister								69		6
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab	tr									
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis										
Crangon alaskensis										
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)										
Cockle							500		5	
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hyabella										
Polinices										
Natica										
Starfish (unidentified)										

Appendix table 3 (cont'd)

Set no.	41		42		43		44		45	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sunstars	5		10		25		1500		10	
Pisaster	200		50		75				tr	
Leather stars										
Spisula										
Sea pens	5		5		50		250			
Sand dollars							250		5	
Green urchins										
Sponge										
Sea cucumbers						1				
Bryozoans										
Hydroids										
Barnacles										
Coral										
Jellyfish										
Anemones	tr					2				
Nudibranch	tr									
Tunicate	tr									
Balanus nubilus	tr									

Appendix table 3 (cont'd)

Set no.	46		47		48		49		50	
Estimated Total catch (kg)	3632		1362		6810		908		495	
Duration (min)	15		15		21		15		13	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	3600		1310		6800		515		350	
Ratfish			20							
Skate (sp)		1			.5	1	10		10	
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring					.25	2				
Sandlance										
Smelt										
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch				1						
Pacific sandfish				2						
Tube snout										
Sturgeon poacher										
Mosshead warbonnet										
Sculpin (sp)						1				

Appendix table 3 (cont'd)

Set no.	46		47		48		49		50	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Great sculpin										
Red Irish Lord										
Staghorn sculpin										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Greenling sp.										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole	1		2		2				10	
C-O sole										
Dover sole										
English sole							5		10	
Flathead sole										
Halibut									22	1
Petrale sole										
Rex sole										
Rock sole	2									
Sand sole	2		3		3		5			

Appendix table 3 (cont'd)

Set no.	46		47		48		49		50	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Starry flounder										
Cancer branneri								7		
Cancer gracilis		9	*	5	*	9	*	94	tr	
Cancer oregonensis			13.5		10		17		2	
Cancer productus		5		5		5		54	tr	
Cancer magister		9		22		24		3	tr	
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab		2					tr		tr	
Lithodes acquispina										
Pugettia										
Telmessus							tr			
Crangon sp.										
Crangon argis										
Crangon alaskensis							tr			
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)										
Cockle shells	5		0.5		2		25		15	
Horse clam							25			
Moon snail		1								
Razor clam										
Surf clam										
Hyabella										
Polinices								1		
Natica								1		
Starfish (unidentified)										
Sunstars	2		0.5				250	75		

* combined weight of all Cancer crabs.

Appendix table 3 (cont'd)

Set no.	46		47		48		49		50	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Pisaster							50			
Leather stars										
Spisula								1		
Sea pens	2									
Sand dollars	10		5		1		5			
Green urchins										
Sponge	tr									
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Coral										
Jellyfish										
Stylasterias	tr									

Appendix table 3 (cont'd)

Set no.	51		52		53		54		55	
Estimated Total catch (kg)	318		240		70		40		55	
Duration (min)	15		15		15		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock									0.1	4
Spiny dogfish	272	104	213	88	47	13	27	11	28	12
Ratfish										
Skate (sp)	20		0.5			1				
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring								1		
Sandlance	0.1									
Smelt							0.5		2	
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish	0.2									1
Tube snout										
Sturgeon poacher	0.2					1				
Mosshead warbonnet										

Appendix table 3 (cont'd)

Set no.	51		52		53		54		55	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sculpin (sp)										
Great sculpin									tr	
Red Irish Lord										
Staghorn sculpin										
Lingcod								2		2
Pacific cod										1
Sablefish										
Tomcod										
Greenling sp.									tr	
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										1
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole										
C-O sole			0.3							1
Dover sole										
English sole	1		0.3		5		2		5	
Flathead sole										
Halibut									0.5	1
Petrale sole										
Rex sole										
Rock sole			0.3							

Appendix table 3 (cont'd)

Set no.	51		52		53		54		55	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sand sole	1				5		3		5	
Starry flounder										
Cancer branneri										
Cancer gracilis		10		7		15	tr			4
Cancer oregonensis										
Cancer productus				1				3		4
Cancer magister		17		3		2		6		4
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab										
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis									tr	
Crangon alaskensis										
Coonstripe shrimp					tr		tr			
Pink shrimp										
Sidestripe shrimp										
Squid							0.5			
Shells (unidentified)										
Cockle shells	2		5		1		0.5			
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hyabella										
Polinices										
Natica										
Starfish (unidentified)										

Appendix table 3 (cont'd)

Set no.	51		52		53		54		55	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sunstars	5		5		2		5		10	
Pisaster	3									
Leather stars										
Spisula										
Sea pens										
Sand dollars	5		15		5					
Green urchins										
Sponge										
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Jellyfish										

Appendix table 3 (cont'd)

Set no.	56		57		58		59		60	
Estimated Total catch (kg)	50 kg		10		60		60		180	
Duration (min)	15		4		15		7		15?	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock				3						
Spiny dogfish	29	9	6	3	49	27	50	15	31	11
Ratfish										
Skate (sp)						1		1		
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring										
Sandlance										
Smelt		1				0.5				
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout										
Sturgeon poacher							tr			
Mosshead warbonnet										

Appendix table 3 (cont'd)

Set no.	56		57		58		59		60	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sculpin (sp)		1								
Great sculpin	2	3					tr		tr	
Red Irish Lord										
Staghorn sculpin										
Lingcod						3				
Pacific cod				1		1		2		1
Sablefish										
Tomcod										
Greenling sp.										
Rock greenling			tr						tr	
Whitespotted greenling							tr			
Rockfish (sp)							tr			
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole										
C-O sole										
Dover sole								1		
English	7			1	2		1		0.25	
Flathead sole										
Halibut										
Petrale sole										
Rex sole										
Rock sole				1						

Appendix table 3 (cont'd)

Set no.	56		57		58		59		60	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sand sole	8				3		1		0.25	
Starry flounder										
Cancer branneri										
Cancer gracilis		2		5		3		4		
Cancer oregonensis										
Cancer productus		1		4		1		3		
Cancer magister		9				18		26	146.5	3228
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab										
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis										
Crangon alaskensis	tr									
Coonstripe shrimp		1	0.5				tr			
Pink shrimp										
Sidestripe shrimp										
Squid	tr			1						
Shells (unidentified)										
Cockle							tr		tr	
Horse clam										
Moon snail										
Razor clam						1				
Surf clam										
Hyabella										
Polinices										
Natica										
Starfish (unidentified)										

Appendix table 3 (cont'd)

Set no.	56		57		58		59		60	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sunstars										
Pisaster	1				1	1		1		
Leather stars										
Spisula										
Sea pens										
Sand dollars	2									
Green urchins										
Sponge								1		
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Jellyfish										

Appendix table 3 (cont'd)

Set no.	61		62		63		64		65	
Estimated Total catch (kg)	100		370		6.8		4.5		5.5	
Duration (min)	15		15		60		45		35	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock					6.8	7			0.5	29
Spiny dogfish	93	27	136	37						
Ratfish										
Skate (sp)		2								
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										
Pacific herring										
Sandlance										
Smelt										
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish				1						
Tube snout										
Sturgeon poacher										
Mosshead warbonnet										

Appendix table 3 (cont'd)

Set no.	61		62		63		64		65	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sculpin (sp)										
Great sculpin										
Red Irish Lord										
Staghorn sculpin										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Greenling sp.					1					
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
Butter sole										
C-O sole				1						
Dover sole										
English sole	2		2							
Flathead sole										
Halibut										
Petrale sole										
Rex sole										
Rock sole										

Appendix table 3 (cont'd)

Set no.	61		62		63		64		65	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sand sole	3		3							
Starry flounder			25							
Cancer branneri										
Cancer gracilis		1	tr							
Cancer oregonensis										
Cancer productus		1	tr							
Cancer magister		32	194	730						
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab										
Lithodes aequispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis										
Crangon alaskensis	tr									
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)										
Cockle			tr							
Horse clam										
Moon snail			tr							
Razor clam										
Surf clam										
Hyabella										
Polinices										
Natica										
Starfish (unidentified)										

Appendix table 3 (cont'd)

Set no.	61		62		63		64		65	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sunstars			5							
Pisaster										
Leather stars										
Spisula										
Sea pens										
Sand dollars										
Green urchins										
Sponge										
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Jellyfish							4.5	3	5	

Appendix table 3 (cont'd)

Set no.	66		67		68		69		70	
Estimated Total catch (kg)	11.6		487		397		1486		109.5	
Duration (min)	30		20		30		30		40	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock			2	2		1	90	123	100	90
Spiny dogfish					38	12	17	5		
Ratfish					13		58			
Skate (sp)			0.5				4			
Black skate			0.25							
Blue skate										
Longnose skate			2		29	5				
Soupfin shark										
Northern smoothtongue	0.2	57								
Northern lampfish	0.2	80								
California headlightfish		1								
Pacific viperfish	0.2	17								
Eulachon		1							5	
Pacific herring										2
Sandlance										
Smelt										
Chinook salmon										
Chum salmon									0.5	1
Coho salmon										
Tadpole snailfish		20								
Smalldisk snailfish			0.25	3						
Pearly prickleback			0.25	1						
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout										
Sturgeon poacher										
Mosshead warbonnet										

Appendix table 3 (cont'd)

Set no.	66		67		68		69		70	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sculpin (sp)										
Great sculpin										
Red Irish Lord										
Staghorn sculpin										
Lingcod					21	2	9	1		
Pacific cod					15	20	22	13		
Sablefish			250	98						
Tomcod										
Greenling sp.										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio							12			
Pacific ocean perch							864	884	1	1
Quillback rockfish										
Redbanded rockfish							5			
Rougheye rockfish	9	4	20	12						
Shortraker rockfish			45	18						
Silvergray rockfish							14		3	1
Yellowtail rockfish										
Shortspine thornyhead			26				16			
Arrowtooth flounder			3	4	156		144			
Butter sole										
C-O sole										
Dover sole			104		31		103			
English sole					2					
Flathead sole										
Halibut							12	1		
Petrale sole					8		3			
Rex sole			24		56		113			

Appendix table 3 (cont'd)

Set no.	66		67		68		69		70	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Rock sole										
Sand sole										
Starry flounder										
Cancer branneri										
Cancer gracilis										
Cancer oregonensis										
Cancer productus										
Cancer magister										
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab										
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis										
Crangon alaskensis										
Coonstripe shrimp										
Pink shrimp										
Glass shrimp		2								
Sidestripe shrimp										
Squid				10						
Shells (unidentified)										
Cockle										
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hyabella										
Polinices										

Appendix table 3 (cont'd)

Set no.	66		67		68		69		70	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Natica										
Starfish (unidentified)					14					
Sunstars										
Pisaster										
Leather stars										
Spisula										
Sea pens										
Sand dollars										
Green urchins										
Sponges										
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Jellyfish					14					
Brittle stars										

Appendix table 3 (cont'd)

Set no.	71		72		73		74		75	
Estimated Total catch (kg)	165		50		2		78		27	
Duration (min)	45		60		35		30		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock			50	48			76	74	21	19
Spiny dogfish										
Ratfish										
Skate (sp.)										
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon			2				tr		5	
Pacific herring										
Sandlance										
Smelt										
Chinook salmon										
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish				1						3
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout										
Sturgeon poacher										
Mosshead warbonnet										
Sculpin (sp)										

Appendix table 3 (cont'd)

Set no.	71		72		73		74		75	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Great sculpin										
Red Irish Lord										
Staghorn sculpin										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Greenling sp.										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch									1	
Quillback rockfish										
Redbanded rockfish										
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish	11						2	1		
Yellowtail rockfish	102	61	10	-						
Arrowtooth flounder										
Butter sole										
C-O sole										
Dover sole										
English sole										
Flathead sole										
Halibut										
Petrale sole										
Rex sole										
Rock sole										
Sand sole										

Appendix table 3 (cont'd)

Set no.	71		72		73		74		75	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Starry flounder										
Cancer branneri										
Cancer gracilis										
Cancer oregonensis										
Cancer productus										
Cancer magister										
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab										
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis										
Crangon alaskensis										
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)										
Cockle										
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hyabella										
Polinices										
Natica										
Starfish (unidentified)										
Sunstars										

Appendix table 3 (cont'd)

Set no.	71		72		73		74		75	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Pisaster										
Leather stars										
Spisula										
Sea pens										
Sand dollars										
Green urchins										
Sponge										
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Jellyfish			40		2					

Appendix table 3 (cont'd)

Set no.	76		77		78		79		80	
Estimated Total catch (kg)	2		17.5		24		302.5		746	
Duration (min)	30		10				30		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock		2	0.5		2		288	247	10	17
Spiny dogfish									49	12
Ratfish									2	
Skate (sp)									13	
Black skate										
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon									39	
Pacific herring			6			1				
Sandlance						1				
Smelt										
Chinook salmon										
Chum salmon							3	1		
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish						2				
Giant wrymouth									11	
Eelpout									8	
Shiner perch										
Pacific sandfish				3						
Tube snout										
Sturgeon poacher										
Mosshead warbonnet										
Sculpin (sp)										

Appendix table 3. (cont'd)

Set no.	76		77		78		79		80	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Great sculpin										
Red Irish Lord										
Staghorn sculpin										
Linocod										
Pacific cod									27	
Sablefish										
Tomcod										
Greenling sp.										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish										
Redbanded rockfish									78	
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish							6	2	6	
Yellowtail rockfish							5	2		
Shortspine thornyhead									5	
Arrowtooth flounder							0.5	1	157	
Butter sole										
C-O sole										
Dover sole									188	
English sole										
Flathead sole									27	
Halibut										
Petrale sole										
Rex sole									126	
Rock sole										1

Appendix table 3 (cont'd)

Set no.	76		77		78		79		80	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sand sole										
Starry flounder										
Cancer branneri										
Cancer gracilis										
Cancer oregonensis										
Cancer productus										
Cancer magister										
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab										
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis										
Crangon alaskensis										
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)										
Cockle										
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hyabella										
Polinices										
Natica										
Starfish (unidentified)										

Appendix table 3 (cont'd)

Set no.	76		77		78		79		80	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sunstars										
Pisaster										
Leather stars										
Spisula										
Sea pens										
Sand dollars										
Green urchins										
Sponge										
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Jellyfish			11		22					

Appendix table 3 (cont'd)

Set no.	81		82		83		84		85	
Estimated Total catch (kg)	922		2318		142		38		34	
Duration (min)	30		30		8		45		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock	297	264		1					31	25
Spiny dogfish	64	20	232	118	57	26			3	
Ratfish	20			12	25					
Skate (sp)	40	23								
Black skate				1						
Blue skate										
Longnose skate										
Soupfin shark										
Northern smoothtongue										
Northern lampfish										
California headlightfish										
Pacific viperfish										
Eulachon										1
Pacific herring										
Sandlance										
Smelt										
Chinook salmon	3	1								
Chum salmon										
Coho salmon										
Tadpole snailfish										
Smalldisk snailfish										
Prowfish										
Giant wrymouth										
Eelpout										
Shiner perch										
Pacific sandfish										
Tube snout										
Sturgeon poacher										
Mosshead warbonnet										
Sculpin (sp)										

Appendix table 3. (cont'd)

Set no.	81		82		83		84		85	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Great sculpin										
Red Irish Lord										
Staghorn sculpin					0.25	1				
Lingcod	10	1			0.5	1				
Pacific cod	20	22	29	18						
Sablefish						1				
Tomcod		1								
Greenling sp.										
Rock greenling										
Whitespotted greenling										
Rockfish (sp)										
Bocaccio										
Pacific ocean perch										
Quillback rockfish			5		1	1				
Redbanded rockfish	1	1								
Rougheye rockfish										
Shortraker rockfish										
Silvergray rockfish										
Yellowtail rockfish										
Arrowtooth flounder	247		1800		46					
Butter sole		1								
C-O sole										
Dover sole	19			50						
English sole	52		250		1	3				
Flathead sole	15									
Halibut	16	3	2	1	4	1				
Petrale sole				1						
Rex sole	121			50						
Rock sole					25	0.5	1			
Sand sole										

Appendix table 3 (cont'd)

Set no.	81		82		83		84		85	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Starry flounder										
Cancer branneri										
Cancer gracilis										
Cancer oregonensis										
Cancer productus										
Cancer magister										
Oregonia gracilis										
Cryptolithodes typicus										
Hermit crab										
Lithodes acquispina										
Pugettia										
Telmessus										
Crangon sp.										
Crangon argis										
Crangon alaskensis										
Coonstripe shrimp										
Pink shrimp										
Sidestripe shrimp										
Squid										
Shells (unidentified)										
Cockle										
Horse clam										
Moon snail										
Razor clam										
Surf clam										
Hyabella										
Polinices										
Natica										
Starfish (unidentified)	tr				11					
Sunstars										

Appendix table 3 (cont'd)

Set no.	81		82		83		84		85	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Pisaster										
Leather stars										
Spisula										
Sea pens										
Sand dollars										
Green urchins										
Sponge										
Sea cucumbers										
Bryozoans										
Hydroids										
Barnacles										
Jellyfish							38		tr	

Appendix table 3 (cont'd)

Set no.	86		87		88		89	
Estimated Total catch (kg)	450		401		1.5		164	
Duration (min)	30		35		30		25	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock	248	179	369	311	0.5	1	101	137
Spiny dogfish	2	1						
Ratfish								
Skate (sp)								
Black skate								
Blue skate								
Longnose skate								
Soupfin shark								
Northern smoothtongue								
Northern lampfish								
California headlightfish								
Pacific viperfish								
Eulachon	191							
Pacific herring								
Sandlance								
Smelt								
Chinook salmon								
Chum salmon								
Coho salmon								
Tadpole snailfish								
Smalldisk snailfish								
Prowfish								
Giant wrymouth								
Eelpout								
Shiner perch								
Pacific sandfish								
Tube snout								
Sturgeon poacher								
Mosshead warbonnet								
Sculpin (sp)								

Appendix table 3 (cont'd)

Set no.	86		87		88		89	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Great sculpin								
Red Irish Lord								
Staghorn sculpin								
Lingcod								
Pacific cod			6	2				
Sablefish	tr							
Tomcod								
Greenling sp.								
Rock greenling								
Whitespotted greenling								
Rockfish (sp)								
Bocaccio								
Pacific ocean perch			1	1			62	37
Quillback rockfish								
Redbanded rockfish								
Rougheye rockfish								
Shortraker rockfish								
Silvergray rockfish	2	2	25		1	1		
Yellowtail rockfish								
Arrowtooth flounder	7	8					1	
Butter sole								
C-O sole								
Dover sole								
English sole								
Flathead sole								
Halibut								
Petrale sole								
Rex sole								
Rock sole								
Sand sole								

Appendix table 3. (cont'd)

Set no.	86		87		88		89	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Starry flounder								
Cancer branneri								
Cancer gracilis								
Cancer oregonensis								
Cancer productus								
Cancer magister								
Oregonia gracilis								
Cryptolithodes typicus								
Hermit crab								
Lithodes acquispina								
Pugettia								
Telmessus								
Crangon sp.								
Crangon argis								
Crangon alaskensis								
Coonstripe shrimp								
Pink shrimp								
Sidestripe shrimp								
Squid								
Shells (unidentified)								
Cockle								
Horse clam								
Moon snail								
Razor clam								
Surf clam								
Hyabella								
Polinices								
Natica								
Starfish (unidentified)								
Sunstars								

Appendix table 3 (cont'd)

Set no.	86		87		88		89	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Pisaster								
Leather stars								
Spisula								
Sea pens								
Sand dollars								
Green urchins								
Sponge								
Sea cucumbers								
Bryozoans								
Hydroids								
Barnacles								
Jellyfish	tr							

Appendix table 4. Species composition by set, ARCTIC HARVESTER, June 1978.

Set no.	1		2		3		4		5	
Estimated Total catch (kg)	5500		4100		545		680		330	
Duration (min)	30		30		20		30		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock							-	1		
Spiny dogfish	505	298	334	150	460	249	486	242	294	139
Ratfish										
Northern smoothtongue										
Skate		1							tr*	
Skate egg case									tr	
Eulachon										
Northern lampfish										
Pacific herring					tr				tr	
Sandlance										
Surf smelt										
Chinook salmon			2	2					12.5	1
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish										
Sea poacher										
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin										
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel	tr									
Lingcod										
Pacific cod	163									
Sablefish			3473							
Tomcod	3300									
Whitespotted greenling										
Rocaccio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole										
English sole							tr			
Halibut	7	35	10.5	4			13	45	3	2
Rex sole										
Rock sole	1100		334		tr		tr			
Sand sole	+				tr		tr		tr	
Curlfin sole										
Starry flounder							tr		tr	

Appendix table 4 (cont'd)

Set no.	1		2		3		4		5	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis							tr		tr	
Cancer productus							tr			
Cancer magister	1	1			20	35	46	75	6	10
Hermit crab			41				tr		tr	
Telmessus										
Spider crab										
Euphausiids										
Crangon sp.										
Coonstripe shrimp										
Octopus										
Squid								2		
Shells (unidentified)										
Cockle									tr	
Horse clam										
Moon snail										
Moon snail egg case										
Razor clam									tr	
Butter clam										
Tubeworm										
Starfish (unidentified)							50		tr	
Sunstars					50					
Pisaster										
Leather stars										
Sea pens	tr				tr		50		tr	
Sand dollars									tr	
Sea urchins										
Sponge										
Sea cucumber										
Sea anemone										
Barnacles										
Jellyfish										
Jellyfish medusae										
Seaweed (unidentified)										
Wood										
Stones										
Egg cases									tr	

* tr = trace

Appendix table 4 (cont'd)

Set no.	6		7		8		9		10	
Estimated Total catch (kg)	8		2000		5500		800		300	
Duration (min)	30		10		30		10		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	8	4	2000		5000		791	331	155	93
Ratfish										
Northern smoothtongue										
Skate								1	40	
Skate egg cases										
Eulachon										
Northern lampfish										
Pacific herring	tr								5	
Sandlance										
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish		2								
Sea poacher										2
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin									tr	
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Ling cod										
Pacific cod										
Sablefish									6	
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole										
English sole										
Halibut									15	2
Rex sole										
Rock sole									40	
Sand sole							1		1	
Curlfin sole										
Starry flounder										

Appendix table 4 (cont'd)

Set no.	6		7		8		9		10	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis						1				
Cancer productus			3	14		3				
Cancer magister						2		1	9	17
Hermit crab										
Telmessus				1		1				
Spider crab										
Euphausiids										
Crangon										
Coonstripe shrimp										
Octopus				1						
Squid									1	15
Shells (unidentified)			tr		tr		tr		tr	
Cockle										
Horse clam										
Moon snail										
Moon snail egg case										
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)			tr		tr		tr		20	
Sunstars										
Pisaster										
Leather stars										
Sea pens	tr		tr		tr					
Sand dollars										
Sea urchins										
Sponge										
Sea cucumber										
Sea anenome										
Barnacles			tr						tr	
Jellyfish										
Jellyfish medusae										
Seaweed (unidentified)										
Wood										
Stones										

Appendix table 4 (cont'd)

Set no.	11		12		13		14		15	
Estimated Total catch (kg)	4500		2700		1800		680		2700	
Duration (min)	30		15		20		15		20	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	4000		2000		623	299	455	200	794	440
Ratfish										
Northern smoothtongue										
Skate	tr		tr			1	tr		tr	
Skate egg cases							tr			
Eulachon										
Northern lampfish										
Pacific herring	tr					4	tr			
Sandlance										
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden		1								
Snailfish	tr									
Pacific sandfish								1		
Sea poacher	tr								tr	
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin									tr	
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel									tr	
Lingcod										
Pacific cod									tr	
Sablefish	tr							2	tr	
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole							tr			
English sole										
Halibut	7	6	12	5		1	19	11	5	11
Rex sole										
Rock sole							tr		tr	
Sand sole			tr		tr					
Curlfin sole										
Starry flounder	tr		tr				tr		tr	

Appendix table 4 (cont'd)

Set no.	11		12		13		14		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis	*				*	2		5		8
Cancer productus	73				4		34 *			2
Cancer magister		94				4		59		
Hermit crab				10		4		1	tr	
Telmessus										
Spider crab										
Euphausiids										
Crangon sp.							tr			
Coonstripe shrimp										
Octopus										
Squid								1		
Shells (unidentified)	tr		tr		tr				tr	
Cockle			tr				tr			
Horse clam										
Moon snail			tr		tr		tr			
Moon snail egg case										
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)	tr				tr				tr	
Sunstars			tr							
Pisaster			tr							
Leather stars										
Sea pens					tr		tr		tr	
Sand dollars					tr		tr			
Sea urchins										
Sponge										
Sea cucumber										
Sea anenome	tr									1
Barnacles										
Jellyfish			tr							
Jellyfish medusae										
Seaweed (unidentified)										
Wood										
Stones										

*Weights of all Cancer sp. and hermit crabs combined.

Appendix table 4 (cont'd)

Set no.	16		17		18		19		20	
Estimated Total catch (kg)	680		145		158		150		150	
Duration (min)	15		15		15		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										1
Spiny dogfish	140	68	5	2	64	17	100	23	102	26
Ratfish										
Northern smoothtongue										
Skate	tr		tr							
Skate egg cases										
Eulachon										
Northern lampfish										
Pacific herring	tr		tr							
Sandlance			tr							
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish								2		
Pacific sandfish			tr							
Sea poacher	tr									1
Snake prickleback										1
Saddleback gunnel								1		
Buffalo sculpin										1
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel		1								
Lingcod										
Pacific cod	tr									
Sablefish	tr									
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole									tr	
English sole					tr				tr	
Halibut	8	3				2		1	1	3
Rex sole										
Rock sole	tr		tr		tr				tr	
Sand sole	tr		tr		tr					
Curlfin sole	tr									
Starry flounder										

Appendix table 4 (cont'd)

Set no.	16		17		18		19		20	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis										3
Cancer productus										2
Cancer magister			35	214	1	1				
Hermit crab	tr				tr		tr			
Telmessus										
Spider crab										1
Euphausiids										
Crangon sp.			tr		tr		tr		tr	
Coonstripe shrimp										
Octopus								2		1
Squid										
Shells (unidentifed)			tr		tr				tr	
Cockle										
Horse clam										
Moon snail	+						tr		tr	
Moon snail egg case					tr		tr		tr	
Razor clam										
Butter clam										
Tube worm							tr			
Starfish (unidentified)	tr		tr				tr			
Sunstars					tr		tr		tr	
Pisaster							tr		tr	
Leather stars										
Sea pens	tr			1					tr	
Sand dollars			100		tr		tr			
Sea urchins							tr			
Sponge										
Sea cucumber										
Sea anenome	tr		tr		tr				tr	1
Barnacles							tr			
Jellyfish			tr							
Jellyfish medusae										
Seaweed (unidentified)			tr		tr		tr		tr	
Wood										
Stones					tr		tr			

Appendix table 4 (cont'd)

Set no.	21		22		23		24		25	
Estimated Total catch (kg)	180		700		950		250		900	
Duration (min)	15		15		15		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	29	7	605	178	901	253	230	58	864	254
Ratfish										
Northern smoothtongue										
Skate				1		1				
Skate egg cases										
Eulachon									tr	
Northern lampfish										
Pacific herring			tr		tr		tr		tr	
Sandlance				2						
Surf smelt				1			tr			
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish										
Sea poacher							tr			
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin	tr									
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole										
English sole	tr				tr					
Halibut				1		3	1			
Rex sole										
Rock sole	1				tr		tr			
Sand sole			tr		tr				tr	
Curlfin sole										
Starry flounder										

Appendix table 4 (cont'd)

Set no.	21		22		23		24		25	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis						18			1	18
Cancer productus			4	99			3	61		2
Cancer magister										
Hermit crab										
Telmessus										
Spider crab	tr									
Euphausiids										
Crangon sp.	tr						tr			
Coonstripe shrimp										
Octopus										
Squid						1				
Shells (unidentified)	tr		tr		tr					
Cockle										
Horse clam			tr							
Moon snail			tr			1		2		
Moon snail egg case									tr	
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)	tr		tr					4	tr	
Sunstars										
Pisaster	140*									
Leather stars										
Sea pens										1
Sand dollars			tr		tr		tr		tr	
Sea urchins										
Sponge										
Sea cucumber										
Sea anenome	tr									1
Barnacles										
Jellyfish								3		
Jellyfish medusae										
Seaweed (unidentified)							tr		tr	
Wood										
Stones	tr									

*All starfish combined.

Appendix table 4 (cont'd)

Set no.	26		27		28		29		30	
Estimated Total catch (kg)	850		100		50		200		400	
Duration (min)	15		8		15		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	805	235	52	14	18	6	116	45	189	75
Ratfish										
Northern smoothtongue										
Skate								1		1
Skate egg cases										
Eulachon										
Northern lampfish										
Pacific herring	tr									
Sandlance	tr		tr							
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish										
Sea poacher								1		
Snake prickleback										
Saddleback gunnel										
Buffalo				1						
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole										
English sole										
Halibut								1		
Rex sole										
Rock sole	tr							1		
Sand sole					tr			1		1
Curlfin sole										
Starry flounder										

Appendix table 4 (cont'd)

Set no.	26		27		28		29		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis		1		2						5
Cancer productus				1						
Cancer magister		1			3	26	1	1	4	8
Hermit crab				4						
Telmessus					tr					
Spider crab										
Euphausiids										
Crangon sp.					tr		tr			
Coonstripe shrimp										
Octopus										
Squid					tr					
Shells (unidentified)	tr		tr		tr		tr		tr	
Cockle										
Horse clam										
Moon snail		1								
Moon snail egg case		1			tr		tr			
Razor clam										
Butter clam										
Tubeworm				1						
Starfish (unidentified)			tr							
Sunstars			tr		tr		tr		tr	
Pisaster			tr							
Leather stars			tr							
Sea pens										
Sand dollars		1			tr		tr		150	
Sea urchins										
Sponge			tr							
Sea cucumber										
Sea anenome				1						
Barnacles			tr							
Jellyfish	tr				tr					
Jellyfish medusae										
Seaweed (unidentified)					tr		tr			
Wood										
Stones										

Appendix table 4 (cont'd)

Set no.	31		32		33		34		35	
Estimated Total catch (kg)	150		300		150		350		235	
Duration (min)	15		15		15		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	104	65	297	170	100	49	343	137	224	92
Ratfish										
Northern smoothtongue										
Skate		1						3		7
Skate egg cases										
Eulachon										
Northern lampfish										
Pacific herring										
Sandlance		1	tr		tr		tr			
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish						1				
Sea poacher		1						1		
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin										
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole										
English sole										
Halibut		3					tr			
Rex sole										
Rock sole			tr						tr	
Sand sole			tr				tr		tr	
Curlfin sole										
Starry flounder										

Appendix table 4 (cont'd)

Set no.	31		32		33		34		35	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis		1	4			4	tr			
Cancer productus										
Cancer magister	8	12						4		2
Hermit crab	tr		tr							
Telmessus										
Spider crab										
Euphausiids										
Crangon sp.	tr		tr		tr					
Coonstripe shrimp										
Octopus										
Squid			tr							
Shells (unidentified)	tr						tr		tr	
Cockle							tr			
Horse clam										
Moon snail							tr			
Moon snail egg case		1					tr		tr	
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)										
Sunstars	tr		tr				tr		tr	
Pisaster	tr		tr		tr		tr		tr	
Leather stars										
Sea pens		3								
Sand dollars	tr		tr		tr		tr			
Sea urchins										
Sponge										
Sea cucumber										
Sea anenome										
Barnacles										
Jellyfish	tr		tr		tr					
Jellyfish medusae										
Seaweed (unidentified)			tr		tr		tr		tr	
Wood										
Stones										

Appendix table 4 (cont'd)

Set no.	36		37		38		39		40	
Estimated Total catch (kg)	125		50		75		100		450	
Duration (min)	15		15		15		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	100	44					10	4		
Ratfish										
Northern smoothtongue										
Skate										
Skate egg cases										
Eulachon										
Northern lampfish										
Pacific herring										
Sandlance										
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish										
Sea poacher										
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin						2		2		
Staghorn sculpin						2				
Spiny lumpsucker										
Wolf eel										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole										
English										
Halibut						1				1
Rex sole										
Rock sole	tr				tr					
Sand sole	tr		tr		tr		tr		tr	
Curlfin sole										
Starry flounder										

Appendix table 4 (cont'd)

Set no.	36		37		38		39		40	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis	tr									
Cancer productus	tr									
Cancer magister	10	25	4.75	29	12	98	33	155	59	213
Hermit crab										
Telmessus										
Spider crab	tr						tr		tr	
Euphausiids										
Crangon sp.	tr		tr		tr		tr		tr	
Coonstripe shrimp										
Octopus										
Squid										
Shells (unidentified)	tr		tr		tr		tr		tr	
Cockle										
Horse clam										
Moon snail		1								
Moon snail egg case		1							tr	
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)									180	
Sunstars	tr		tr				25			
Pisaster	tr		tr							
Leather stars										
Sea pens										
Sand dollars			tr		tr		25		tr	
Sea urchins										
Sponge										
Sea cucumber										
Sea anenome		2								
Barnacles										
Jellyfish			tr				tr		tr	
Jellyfish medusae										
Seaweed (unidentified)	tr		tr		tr					
Wood										
Stones									tr	

Appendix table 4 (cont'd)

Set no.	41		42		43		44		45	
Estimated Total catch (kg)	200		300		180		100		160	
Duration (min)	8		15		15		15		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	2	1	57	18	67	22	34	11	84	37
Ratfish										
Northern smoothtongue										
Skate										
Skate egg cases										
Eulachon										
Northern lampfish										
Pacific herring										
Sandlance							tr		tr	
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish										
Sea poacher										
Snake prickleback										
Saddleback gunnel										1
Buffalo sculpin		1	tr			2		3		2
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Lingcod			1	4				2		
Pacific cod										
Sablefish										
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole								1		
English sole										
Halibut				1		1		3		
Rex sole										
Rock sole										
Sand sole					tr				tr	
Curlfin sole										
Starry flounder										

Appendix table 4 (cont'd)

Set no.	41		42		43		44		45	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis	tr				tr					
Cancer productus										
Cancer magister	4	6		23	11	40	2.5	100		34
Hermit crab										
Telmessus										
Spider crab	tr		tr		tr		tr		tr	
Euphausiids										
Crangon sp.					tr		tr		tr	
Coonstripe shrimp				1		1		1		
Octopus										
Squid				1						
Shells (unidentified)	tr				tr		tr		tr	
Cockle										
Horse clam										
Moon snail									tr	
Moon snail egg cases		2			tr				tr	
Razor clam										
Butter clam							tr			
Tubeworm										
Starfish (unidentified)										
Sunstars	tr		115*		136*			3	tr	
Pisaster	tr								tr	
Leather stars										
Sea pens										
Sand dollars	tr				tr				tr	
Sea urchins						2				
Sponge										
Sea cucumber										
Sea anenome		2							tr	
Barnacles										
Jellyfish			tr			2	tr		tr	
Jellyfish medusae										
Seaweed (unidentified)	tr		tr		25		tr		tr	
Wood							tr		tr	
Stones	tr				tr				tr	

* combined weights of Sunstars and Pisaster sp.

Appendix table 4 (cont'd)

Set no.	46		47		48		49		50	
Estimated Total catch (kg)	360		225		320		36		200	
Duration (min)	30		15		15		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish					178	74	21	7	161	88
Ratfish										
Northern smoothtongue										
Skate										
Skate egg cases										
Eulachon										
Northern lampfish										
Pacific herring								1		
Sandlance					tr		tr		tr	
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish								1		4
Sea poacher		1							tr	
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin	tr									
Staghorn sculpin		2								
Spiny lumpsucker		1								
Wolf eel										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Whitespotted greenling		3								
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole										
English sole										
Halibut					2	13	1			
Rex sole										
Rock sole										
Sand sole	tr		tr				tr		tr	
Curlfin sole										
Starry flounder		2				1		1		

Appendix table 4 (cont'd)

Set no.	46		47		48		49		50	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis										
Cancer productus										
Cancer magister	124	526	15	119		1		2		
Hermit crab							tr			
Telmessus	tr									
Spider crab	tr		tr				tr			
Euphausiids										
Crangon sp.	tr		tr				tr		tr	
Coonstripe shrimp	tr									
Octopus						1				
Squid								1		
Shells (unidentified)	tr		tr		50		tr		tr	
Cockle	tr		tr							
Horse clam										
Moon snail					tr		tr		tr	
Moon snail egg case	tr		tr				tr			
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)										
Sunstars	227		tr		tr			1	tr	
Pisaster					tr					
Leather stars										
Sea pens				2	tr			2		
Sand dollars	tr						tr		tr	
Sea urchins										
Sponge										
Sea cucumber										
Sea anenome	tr		tr		tr			1		
Barnacles										
Jellyfish			tr				tr		tr	
Jellyfish medusae										
Seaweed (unidentified)	tr		tr		tr		tr			
Wood										
Stones										

Appendix table 4 (cont'd)

Set no.	51		52		53		54		55	
Estimated Total catch (kg)	160		180		90		90		90	
Duration (min)	15		15		30		15		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	131	65	61	41	16	8	59	20	32	11
Ratfish										
Northern smoothtongue										
Skate	25	2		1		3	tr			3
Skate egg cases				1		3				
Eulachon										
Northern lampfish										
Pacific herring										
Sandlance	tr									
Surf smelt										
Chinook salmon							tr			
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish		1								3
Sea poacher				1		1	tr			1
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin				1				2		
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Lingcod										
Pacific cod				1						
Sablefish				1						
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole							tr			
English sole			tr				tr			
Halibut		2		3			tr			
Rex sole										
Rock sole		tr	tr						tr	
Sand sole		tr	tr		tr		tr		tr	
Curlfin sole										
Starry flounder										

Appendix table 4 (cont'd)

Set no.	51		52		53		54		55	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis	2				tr		tr			
Cancer productus					6*		4*			
Cancer magister				2		2		6	2	20
Hermit crab			tr							
Telmessus										
Spider crab					tr		tr			
Euphausiids										
Crangon sp.	tr		tr		tr		tr		tr	
Coonstripe shrimp										
Octopus										
Squid										
Shells (unidentified)	tr		50		tr		tr		tr	
Cockle										
Horse clam										
Moon snail		1	tr							
Moon snail egg case			tr		tr					
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)	8		tr							
Sunstars					tr					
Pisaster					tr		5			
Leather stars										
Sea pens	tr		tr				tr			
Sand dollars							15		75	
Sea urchins										
Sponge										
Sea cucumber										
Sea anenome							tr			
Barnacles										
Jellyfish	tr									
Jellyfish medusae										
Seaweed (unidentified)	tr				tr				tr	
Wood										
Stones										

*All Cancer sp. weights combined.

Appendix table 4 (cont'd)

Set no.	56		57		58		59		60	
Estimated Total catch (kg)	220		330		553		160		120	
Duration (min)	30		30		30		30		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	141	57	276	114	155	83	57	32		
Ratfish										
Northern smoothtongue										
Skate	tr					2				
Skate egg cases			tr							
Eulachon										
Northern lampfish										
Pacific herring										
Sandlance	tr									
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish	tr			2						
Sea poacher	tr					2				1
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin	tr									
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Lingcod						8				
Pacific cod					tr		tr		53	174
Sablefish										
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole	tr									
English sole	tr				tr					17
Halibut	9	3								
Rex sole									50*	
Rock sole					30					17

*Weight of all flatfish combined

Appendix table 4 (cont'd)

Set no.	56		57		58		59		60	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sand sole					5					16
Curlfin sole										
Starry flounder										
Cancer gracilis	tr		tr		tr		tr			
Cancer productus	8*		2*		tr		2*			
Cancer magister		19		4					1	2
Hermit crab							tr		tr	
Telmessus										
Spider crab					tr		tr			
Euphausiids										
Crangon sp.			tr							
Coonstripe shrimp										
Octopus										
Squid										
Shells (unidentified)	tr				120		100		tr	
Cockle										
Horse clam										
Moon snail	tr									
Moon snail egg case			tr						tr	
Razor clam									tr	
Butter clam										
Tubeworm										
Starfish (unidentified)			tr		120		tr		tr	
Sunstars										
Pisaster							tr			
Leather stars							tr			
Sea pens									tr	
Sand dollars	50		tr							
Sea urchins										
Sponge					120		tr		tr	
Sea cucumber										
Sea anenome					tr		tr		tr	
Barnacles										
Jellyfish			tr		tr		tr			
Jellyfish medusae										
Seaweed (unidentified)	tr		tr				tr		tr	
Wood										
Stones										

*Combined weights of all Cancer sp.

Appendix table 4 (cont'd)

Set no.	61		62		63		64		65	
Estimated Total catch (kg)	350		3200		3400		680		235	
Duration (min)	15		30		18		30		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock							591	370		
Spiny dogfish	231	63	2120	665	1360	4690			225	83
Ratfish							tr		tr	
Northern smoothtongue										
Skate		2	tr				tr		tr	
Skate egg cases										
Eulachon	tr									
Northern lampfish										
Pacific herring									tr	
Sandlance	tr									
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon				1						
Dolly varden										
Snailfish										
Pacific sandfish	tr		tr							
Sea poacher										
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin										
Staghorn sculpin	tr		tr							
Spiny lumpsucker										
Wolf eel										
Ling cod										
Pacific cod							tr			
Sablefish										
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish							tr			
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder							tr			
C-O sole										
English sole							tr			
Halibut							90*	1		1
Rex sole							tr			
Rock sole			tr				tr			
Sand sole	tr		tr		tr					

*All flatfish weights combined

Appendix table 4 (cont'd)

Set no.	61		62		63		64		65	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Curlfin sole										
Starry flounder										
Cancer gracilis		4								
Cancer productus	73*									
Cancer magister		282	54	247						4
Hermit crab										
Telmessus										
Spider crab							tr		tr	
Euphausiids										
Crangon sp.										
Coonstripe shrimp										
Octopus							11			
Squid		27								
Shells (unidentified)	tr								tr	
Cockle										
Horse clam			tr							
Moon snail			tr		tr				tr	
Moon snail egg cases										
Razor clam										
Butter clam			tr							
Tubeworm										
Starfish (unidentified)			tr				tr		tr	
Sunstars	tr				tr					
Pisaster	tr				tr					
Leather stars										
Sea pens										
Sand dollars	tr		795		tr					
Sea urchins										
Sponge										
Sea cucumber										
Sea anenome							tr		tr	
Barnacles					tr					
Jellyfish	tr						tr			
Jellyfish medusae										
Seaweed (unidentified)			tr		tr					
Wood			tr							
Stones										

*Combined weight of all Cancer sp.

Appendix table 4 (cont'd)

Set no.	66		67		68		69		70	
Estimated Total catch (kg)			1800		45		8172		35	
Duration (min)	30		30		15		45		15	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish			438	215	40	21	8000		28	9
Ratfish										
Northern smoothtongue										
Skate				1			tr			
Skate egg cases										
Eulachon										
Northern lampfish										
Pacific herring					tr					
Sandlance										
Surf smelt										
Chinook salmon			2	2					4	11
Coho salmon	.25	1								
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish				1						
Sea poacher										
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin							tr			
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Lingcod							1			
Pacific cod										
Sablefish										
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole							tr			
English sole										
Halibut								1		
Rex sole										
Rock sole										
Sand sole										
Curlfin sole										
Starry flounder										

Appendix table 4 (cont'd)

Set no.	66		67		68		69		70	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Cancer gracilis										
Cancer productus										
Cancer magister			5	19				54		
Hermit crab										
Telmessus										
Spider crab										
Euphausiids										
Crangon sp.										
Coonstripe shrimp										
Octopus										
Squid										
Shells (unidentified)			tr				tr			
Cockle			tr							
Horse clam										
Moon snail							tr			
Moon snail egg case							tr			
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)			tr						tr	
Sunstars							tr			
Pisaster							tr			
Leather stars										
Sea pens										
Sand dollars			1360		tr					
Sea urchins										
Sponge										
Sea cucumber										
Sea anenome										
Barnacles										
Jellyfish		tr		tr						
Jellyfish medusae										
Seaweed (unidentified)							tr		tr	
Wood										
Stones									tr	

Appendix table 4 (cont'd)

Set no.	71		72		73		74		75	
Estimated Total catch (kg)	225		1450		510		230		50	
Duration (min)	30		30		30		30		30	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock										
Spiny dogfish	91	30	290	115	304	121	160	60	15	9
Ratfish										
Northern smoothtongue										
Skate	tr		tr		tr		tr			
Skate egg cases										
Eulachon										
Northern lampfish										
Pacific herring	tr		tr		tr		tr			
Sandlance										
Surf smelt										
Chinook salmon					15	27	.5			1
Coho salmon						2				
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish			tr		tr		tr			
Sea poacher					tr		tr		tr	
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin	tr				tr					
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Lingcod										
Pacific cod										
Sablefish										
Tomcod										
Whitespotted greenling										
Boccacio										
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish										
Yelloweye rockfish										
Yellowtail rockfish										
Arrowtooth flounder										
C-O sole										
English sole	tr									
Halibut	8	4	9	1		2	8	5		
Rex sole										
Rock sole										
Sand sole	tr		tr		tr		tr			
Curlfin sole										

Appendix table 4 (cont'd)

Set no.	71		72		73		74		75	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Starry flounder	tr		tr							
Cancer gracilis	tr				tr					
Cancer productus	tr									
Cancer magister	1	2	6	14	13	45	3	8	2	2
Hermit crab					tr		tr			
Telmessus										
Spider crab									tr	
Euphausiids										
Crangon sp.										
Coonstripe shrimp										
Octopus		1								
Squid										
Shells (unidentified)	tr		tr							
Cockle			tr		tr		tr			
Horse clam										
Moon snail	tr				tr					
Moon snail egg case										
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)	tr				tr					
Sunstars			tr							
Pisaster			tr							
Leather stars										
Sea pens										
Sand dollars	tr		1015		tr				25	
Sea urchins										
Sponge					tr					
Sea cucumber										
Sea anenome			tr							
Barnacles										
Jellyfish									tr	
Jellyfish medusae										
Seaweed (unidentified)	tr		tr						tr	
Wood										
Stones										

Appendix table 4 (cont'd)

Set no.	76		77		78		79		80	
Estimated Total catch (kg)	5		8170		825		5		15	
Duration (min)	30		90		60		60		60	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Walleye pollock			519	469	823	556				
Spiny dogfish			39	12						
Ratfish			tr							
Northern smoothtongue										
Skate			tr							
Skate egg cases										
Eulachon			tr		tr					
Northern lampfish										
Pacific herring										
Sandlance										
Surf smelt										
Chinook salmon										
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish										
Sea poacher			tr							
Snake prickleback			tr							
Saddleback gunnel										
Buffalo sculpin										
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Lingcod			9	1						
Pacific cod			249							
Sablefish			tr			5	5	10	2	5
Tomcod				1						
Whitespotted greenling										
Boccacio										
Quillback rockfish				1						
Rougheye rockfish				1						
Silvergray rockfish				1						
Yelloweye rockfish				1						
Yellowtail rockfish										
Arrowtooth flounder			7,000*			1				
C-O sole										
English sole										
Halibut			15							
Rex sole										
Rock sole										
Sand sole										

*Includes weight of English sole, Rex sole, and Rock sole.

Appendix table 4 (cont'd)

Set no.	76		77		78		79		80	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Curlfin sole										
Starry flounder										
Cancer gracilis										
Cancer productus										
Cancer magister										
Hermit crab										
Telmessus										
Spider crab			tr							
Euphausiids					tr					
Crangon sp.										
Coonstripe shrimp										
Octopus			tr							
Squid										
Shells (unidentified)			tr							
Cockle										
Horse clam										
Moon snail			tr							
Moon snail egg case										
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)			tr							
Sunstars		1	tr							
Pisaster		1	tr							
Leather stars			tr							
Sea pens			tr							
Sand dollars	tr									
Sea urchins			tr							
Sponge										
Sea cucumber			tr							
Sea anenome			tr							
Barnacles										
Jellyfish	tr			tr		tr		tr		
Jellyfish medusae										10
Seaweed (unidentified)			tr							
Wood										
Stones										

Appendix table 4 (cont'd)

Set no.	81		82		83		84		85	
Estimated Total catch (kg)	225		105		90		20		2	
Duration (min)	90		30		45		60		60	
Species	**wt.**	**no.**	**wt.**	**no.**	**wt.**	**no.**	**wt.**	**no.**	**wt.**	**no.**
Walleye pollock	206	142	97	94	85	69	15	12		
Spiny dogfish	1	2								
Ratfish										
Northern smoothtongue			tr							
Skate										
Skate egg cases										
Eulachon		1		1						
Northern lampfish				1						
Pacific herring							1	6		
Sandlance										
Surf smelt										
Chinook salmon					1.5	1				
Coho salmon										
Sockeye salmon										
Dolly varden										
Snailfish										
Pacific sandfish										
Sea poacher										
Snake prickleback										
Saddleback gunnel										
Buffalo sculpin										
Staghorn sculpin										
Spiny lumpsucker										
Wolf eel										
Lingcod										
Pacific cod										
Sablefish						2		9		
Tomcod										
Whitespotted greenling										
Boccacio		1								
Quillback rockfish										
Rougheye rockfish										
Silvergray rockfish	11*	2								
Yelloweye rockfish										
Yellowtail rockfish		2								
Arrowtooth flounder	6	2								
C-O sole										
English sole										
Halibut										
Rex sole										
Rock sole										

*Weight of all rockfish combined

Appendix table 4 (cont'd)

Set no.	81		82		83		84		85	
Species	wt.	no.	wt.	no.	wt.	no.	wt.	no.	wt.	no.
Sand sole										
Curlfin sole										
Starry flounder										
Cancer gracilis										
Cancer productus										
Cancer magister										
Hermit crab										
Telmessus										
Spider crab										
Euphausiids	1		tr							
Crangon sp.										
Coonstripe shrimp										
Octopus										
Squid										
Shells (unidentified)										
Cockle										
Horse clam										
Moon snail										
Moon snail egg case										
Razor clam										
Butter clam										
Tubeworm										
Starfish (unidentified)										
Sunstars										
Pisaster										
Leather stars										
Sea pens										
Sand dollars										
Sea urchins										
Sponge										
Sea cucumber										
Sea anenome										
Barnacles										
Jellyfish	tr						tr		2	
Jellyfish medusae										
Seaweed (unidentified)										
Wood										
Stones										

Appendix table 4 (cont'd)

Set no.	86
Estimated Total catch (kg)	2
Duration (min)	60

Species	wt.	no.
Walleye pollock		
Spiny dogfish		
Ratfish		
Northern smoothtongue		
Skate		
Skate egg cases		
Eulachon		
Northern lampfish		
Pacific herring		
Sandlance		
Surf smelt		
Chinook salmon		
Coho salmon		
Sockeye salmon		
Dolly varden		
Snailfish		
Pacific sandfish		
Sea poacher		
Snake prickleback		
Saddleback gunnel		
Buffalo sculpin		
Staghorn sculpin		
Spiny lumpsucker		
Wolf eel		
Lingcod		
Pacific cod		
Sablefish		
Tomcod		
Whitespotted greenling		
Boccacio		
Quillback rockfish		
Rougheye rockfish		
Silvergray rockfish		
Yelloweye rockfish		
Yellowtail rockfish		
Arrowtooth flounder		
C-O sole		
English sole		
Halibut		
Rex sole		
Rock sole		
Sand sole		
Curlfin sole		
Starry flounder		

Appendix table 4 (cont'd)

Set no.	86	
Species	wt.	no.
Cancer gracilis		
Cancer productus		
Cancer magister		
Hermit crab		
Telmessus		
Spider crab		
Euphausiids		
Crangon sp.		
Coonstripe shrimp		
Octopus		
Squid		
Shells (unidentified)		
Cockle		
Horse clam		
Moon snail		
Moon snail egg case		
Razor clam		
Butter clam		
Tubeworm		
Starfish (unidentified)		
Sunstars		
Pisaster		
Leather stars		
Sea pens		
Sand dollars		
Sea urchins		
Sponge		
Sea cucumber		
Sea anenome		
Barnacles		
Jellyfish	2	
Jellyfish medusae		
Seaweed (unidentified)		
Wood		
Stones		

Appendix table 5. List of common and scientific names of species encountered during ARCTIC HARVESTER cruise, August 1977 and June 1978.

Common name	Scientific name
Roundfish and Rockfish	
Pacific cod	Gadus macrocephalus
Eelpout	Zoarcidae
Eulachon	Thaleichtys pacificus
Greenling spp.	Hexagrammidae
Rock greenling	Hexagrammos lagocephalus
Whitespotted greenling	Hexagrammos stelleri
California headlightfish	Diaphus theta
Pacific herring	Clupea harengus pallasi
Northern lampfish	Stenobrachius leucopsarus
Lingcod	Ophiodon elongatus
Sturgeon poacher	Agonus acipenserinus
Walleye pollock	Theragra chalcogramma
Prickleback	Stichaeidae
Prowfish	Zaprora silenus
Rockfish spp.	Sebastes spp.
Rougheye rockfish	S. aleutianus
Pacific Ocean perch	S. alutus
Redbanded rockfish	S. babcocki
Silvergray rockfish	S. brevispinis
Shortraker rockfish	S. borealis
Yellowtail rockfish	S. flavidus
Quillback rockfish	S. maliger
Bocaccio rockfish	S. paucispinis
Shortspine thornyhead	Sebastolubus alascanus
Sablefish	Anoplopoma fimbria
Chum salmon	Oncorhynchus keta
Coho salmon	Oncorhynchus kisutch
Pacific sandfish	Trichodan trichodon
Sandlance	Ammodytes hexapterus
Sculpin spp.	Cottidae
Red Irish Lord	Hemilepidotus hemilepidotus
Great sculpin	Myoxocephalus polyacanthore
Staghorn sculpin	Leptocottus armatus
Shiner perch	Cymatogaster aggregata
Smelt	Osmeridae
Northern smoothtongue	Leuroglossus stilbius schmidti
Tadpole snailfish	Nectoliparis pelagicus
Smalldisc snailfish	Careproctus gilberti
Tubesnout	Aulorhynchus flavidus
Pacific viperfish	Chauliodus macouni
Mosshead warbonnet	Chirolophis nugator
Giant wrymouth	Delolepis gigantea

Appendix table 5 (cont'd)

Common name	Scientific name
Flatfish	
Arrowtooth flounder	Atheresthes stomias
Butter sole	Isopsetta isolepis
C-O sole	Pleuronichtys coenosus
Dover sole	Microstomus pacificus
English sole	Parophrys vetulus
Flathead sole	Hippoglossoides elassodon
Halibut	Hippoglossus stenolepis
Petrale sole	Eopsetta jordani
Rex sole	Glyptocephalus zachirus
Rock sole	Lepidopsetta bilineata
Sand sole	Psettichtys melanosticus
Starry flounder	Platichthys stellatus
Cartilaginous fish	
Spiny dogfish	Squalus acanthias
Ratfish	Hydrolagus colliei
Soupfin shark	Galeorhinus zyopterus
Skate spp.	Rajidae
Black skate	Raja kincaidi
Longnose skate	Raja rhina
Invertebrates	
	Cancer branneri
	C. gracilis
	C. oregonensis
	C. productus
	C. magister
Red rock crab	Oregonia gracilis
Dungeness crab	Cryptolithode lypsius
Decorator crab	Pagurus hirsutiusculus
Hermit crab	Pugettia gracilis
Spider crab	Telmessus cheiragonus
Helmet crab	Crangon spp.
Sand shrimp	Argis spp.
Northern crangon	C. alaskensis
Coonstripe shrimp	Pandalus danae
Pacific glass shrimp	Pasiphaea pacifica
Sidestripe shrimp	Pandalopsis dispar
Squid	Loligo opalescens
Cockle	Clinocardium nuttallii
Horse clam	Tresus capax
Moon snail	Polinices lewisii
Razor clam	Siliqua patula
Surf clam	Patula
Starfish spp.	Phylum: Echinodermata

Appendix table 5 (cont'd)

Common name	Scientific name
Invertebrates (cont'd)	
Sunstar	Solaster stimpsoni
Seastar	Pisaster ochraceus
Leather star	Dermasterius imbricata
	Spisula
Sea pen	Ptilosarcus gurneyi
Sand dollar	Dendraster excentricus
Green urchins	Strongylocentrotus droebachiensis
Sponge	Phylum: Porifera
Sea cucumber	Eupentacta quinquesemeta
Moss animals	Bryozoa
Hydroid	Hydrozoa
Barnacles	Balanus sp.
Jellyfish	Medusae
Tubeworms	
Sea anenomes	Metridium sp.
Sea slugs	Nudibranch gastropod
Tunicates	Urochordata
	Balonis nudis
	Acitz
Polypoid hydrozoan	Stylasterias

Appendix table 6. Length frequency of dogfish by set, ARCTIC HARVESTER, August 1977.

Set no.	2			3			4			5		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	1	1	-	-	-	-	-	-
56	-	-	-	-	0	0	-	-	-	-	-	-
57	-	-	-	-	0	0	-	-	-	-	1	1
58	-	-	-	1	1	2	-	-	-	-	0	0
59	-	-	-	2	2	4	-	-	-	-	0	0
60	-	-	-	0	1	1	-	-	-	-	0	0
61	-	-	-	3	3	6	1	-	1	1	0	1
62	-	1	1	2	2	4	1	2	3	0	1	1
63	-	0	0	2	5	7	0	3	3	0	1	1
64	-	0	0	1	2	3	1	0	1	0	1	1
65	-	2	2	5	7	12	1	5	6	2	1	3
66	-	1	1	4	11	15	2	4	6	1	0	1
67	-	1	1	4	7	11	2	6	8	3	6	9
68	1	0	1	1	8	9	3	11	14	0	4	4
69	1	1	2	7	5	12	1	4	5	0	5	5
70	0	1	1	5	10	15	3	5	8	2	2	4
71	0	1	1	4	8	12	6	12	18	1	7	8
72	1	0	1	2	6	8	3	9	12	3	8	11
73	0	0	0	5	9	14	4	8	12	2	5	7
74	0	2	2	4	12	16	3	11	14	3	11	14
75	0	0	0	4	12	16	5	16	21	1	1	2
76	0	1	1	4	12	16	4	12	16	4	4	8
77	0	0	0	1	6	7	8	8	16	1	8	9
78	0	0	0	3	7	10	3	6	9	6	7	13
79	0	0	0	6	9	15	3	9	12	10	3	13
80	0	0	0	6	4	10	3	13	16	4	5	9
81	0	0	0	7	13	20	2	6	8	2	9	11
82	1	0	1	2	2	4	3	6	9	3	3	6
83	0	1	1	1	4	5	3	7	10	2	3	5
84	0	0	0	3	4	7	3	11	14	1	6	7
85	0	0	0	2	6	8	0	8	8	2	3	5
86	0	2	2	2	2	4	2	2	4	2	1	3
87	1	0	1	-	2	2	1	5	6	-	0	0
88	-	1	1	-	2	2	0	6	6	-	0	0
89	-	-	-	-	3	3	3	2	5	-	1	1
90	-	-	-	-	4	4	0	5	5	-	2	2
91	-	-	-	-	0	0	1	6	7	-	3	3
92	-	-	-	-	2	2	-	3	3	-	3	3
93	-	-	-	-	3	3	-	3	3	-	0	0
94	-	-	-	-	3	3	-	1	1	-	2	2

Appendix table 6 (cont'd)

Set no.	2			3			4			5		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
95	-	-	-	-	1	1	-	1	1	-	1	1
96	-	-	-	-	1	1	-	4	4	-	0	0
97	-	-	-	-	1	1	-	2	2	-	0	0
98	-	-	-	-	1	1	-	1	1	-	0	0
99	-	-	-	-	1	1	-	3	3	-	2	2
100	-	-	-	-	1	1	-	5	5	-	1	1
101	-	-	-	-	2	2	-	1	1	-	1	1
102	-	-	-	-	0	0	-	4	4	-	1	1
103	-	-	-	-	0	0	-	2	2	-	-	-
104	-	-	-	-	0	0	-	0	0	-	-	-
105	-	-	-	-	0	0	-	4	4	-	-	-
106	-	-	-	-	0	0	-	-	-	-	-	-
107	-	-	-	-	1	1	-	-	-	-	-	-
108	-	-	-	-	0	0	-	-	-	-	-	-
109	-	-	-	-	0	0	-	-	-	-	-	-
110	-	-	-	-	1	1	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	15	20	93	210	303	75	242	317	56	123	179

Appendix table 6 (cont'd)

Set no.	6			7			8			9		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	1	1
53	-	-	-	-	-	-	-	-	-	-	0	0
54	-	-	-	-	-	-	-	-	-	-	0	0
55	-	-	-	-	-	-	-	-	-	-	0	0
56	-	-	-	-	1	1	-	-	-	-	0	0
57	-	-	-	-	0	0	-	-	-	-	0	0
58	-	-	-	1	0	1	-	-	-	-	0	0
59	-	-	-	0	0	0	-	-	-	-	0	0
60	-	-	-	0	1	1	-	-	-	-	2	2
61	-	-	-	0	0	0	-	-	-	1	2	3
62	-	-	-	0	0	0	-	-	-	0	2	2
63	-	-	-	0	0	0	-	-	-	1	5	6
64	-	-	-	0	0	0	-	-	-	1	4	5
65	-	-	-	0	0	0	-	-	-	2	4	6
66	-	-	-	0	1	1	-	-	-	4	12	16
67	-	-	-	0	2	2	-	-	-	2	10	12
68	-	-	-	0	3	3	-	-	-	2	19	21
69	-	-	-	2	2	4	-	-	-	0	23	23
70	-	-	-	0	5	5	-	-	-	2	20	22
71	-	-	-	0	1	1	-	-	-	8	31	39
72	-	-	-	0	8	8	-	-	-	3	26	29
73	-	-	-	1	4	5	-	-	-	4	34	38
74	-	-	-	4	12	16	-	-	-	5	41	46
75	-	-	-	4	10	14	-	-	-	5	36	41
76	-	-	-	2	10	12	-	-	-	3	52	55
77	-	-	-	1	13	14	-	-	-	8	43	51
78	-	2	2	5	6	11	-	-	-	5	42	47
79	1	2	3	6	9	15	-	-	-	2	42	44
80	0	1	1	6	14	20	-	-	-	1	49	50
81	0	2	2	3	6	9	-	-	-	1	25	26
82	0	0	0	5	5	10	-	-	-	1	28	29
83	1	1	2	2	12	14	-	-	-	1	31	32
84	-	0	0	5	13	18	-	-	-	0	34	34
85	-	0	0	2	3	5	-	-	-	1	24	25
86	-	0	0	3	5	8	-	-	-	1	29	30
87	-	1	1	0	5	5	-	-	-	0	26	26
88	-	0	0	1	4	5	-	1	1	0	21	21
89	-	0	0	-	7	7	-	0	0	0	25	25
90	-	0	0	-	5	5	-	0	0	1	22	23
91	-	1	1	-	3	3	-	0	0	-	21	21
92	-	0	0	-	3	3	-	0	0	-	14	14
93	-	0	0	-	3	3	-	0	0	-	15	15
94	-	2	2	-	5	5	-	0	0	-	14	14

Appendix table 6 (cont'd)

Set no. Fork length (cm)	6			7			8			9		
	M	F	T	M	F	T	M	F	T	M	F	T
95	-	-	-	-	4	4	-	0	0	-	7	7
96	-	-	-	-	6	6	-	0	0	-	12	12
97	-	-	-	-	2	2	-	0	0	-	16	16
98	-	-	-	-	0	0	-	1	1	-	12	12
99	-	-	-	-	3	3	-	-	-	-	4	4
100	-	-	-	-	2	2	-	-	-	-	6	6
101	-	-	-	-	1	1	-	-	-	-	8	8
102	-	-	-	-	0	0	-	-	-	-	8	8
103	-	-	-	-	1	1	-	-	-	-	2	2
104	-	-	-	-	1	1	-	-	-	-	3	3
105	-	-	-	-	1	1	-	-	-	-	8	8
106	-	-	-	-	-	-	-	-	-	-	2	2
107	-	-	-	-	-	-	-	-	-	-	4	4
108	-	-	-	-	-	-	-	-	-	-	1	1
109	-	-	-	-	-	-	-	-	-	-	2	2
110	-	-	-	-	-	-	-	-	-	-	2	2
111	-	-	-	-	-	-	-	-	-	-	0	0
112	-	-	-	-	-	-	-	-	-	-	3	3
113	-	-	-	-	-	-	-	-	-	-	0	0
114	-	-	-	-	-	-	-	-	-	-	0	0
115	-	-	-	-	-	-	-	-	-	-	0	0
116	-	-	-	-	-	-	-	-	-	-	0	0
117	-	-	-	-	-	-	-	-	-	-	1	1
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	12	14	53	202	255	0	2	2	65	930	995

Appendix table 6 (cont'd)

Set no.	10			11			12			14		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	1	-	1	-	-	-
54	-	-	-	-	-	-	0	-	0	-	-	-
55	-	-	-	-	1	1	0	-	0	-	-	-
56	-	-	-	-	0	0	0	-	0	-	-	-
57	-	-	-	-	1	1	0	-	0	-	-	-
58	-	-	-	-	0	0	0	-	0	-	-	-
59	-	-	-	-	0	0	1	-	1	-	-	-
60	-	-	-	-	2	2	0	1	1	-	-	-
61	-	-	-	1	0	1	1	1	2	-	-	-
62	-	-	-	1	0	1	2	0	2	1	-	1
63	-	-	-	0	1	1	0	3	3	0	-	0
64	-	-	-	0	1	1	2	5	7	0	-	0
65	-	1	1	1	2	3	0	5	5	0	-	0
66	-	2	2	2	3	5	2	3	5	0	-	0
67	-	0	0	2	7	9	2	2	4	0	-	0
68	-	4	4	3	6	9	2	1	3	0	1	1
69	2	4	6	1	5	6	3	1	4	0	0	0
70	0	1	1	3	4	7	1	1	2	1	1	2
71	1	6	7	5	5	10	3	1	4	0	0	0
72	1	4	5	3	3	6	0	2	2	2	0	2
73	1	3	4	0	8	8	1	0	1	1	2	3
74	1	2	3	2	10	12	3	2	5	0	2	2
75	4	11	15	2	5	7	1	1	2	2	2	4
76	2	7	9	4	10	14	0	1	1	0	3	3
77	0	4	4	5	9	14	1	0	1	3	5	8
78	4	13	17	6	6	12	3	0	3	1	6	7
79	2	3	5	8	0	8	3	2	5	3	1	4
80	2	6	8	4	5	9	0	0	0	2	7	9
81	2	7	9	2	4	6	0	0	0	2	6	8
82	6	6	12	3	3	6	0	1	1	2	8	10
83	1	4	5	1	6	7	0	2	2	2	4	6
84	0	0	0	5	5	10	0	3	3	2	10	12
85	0	3	3	6	6	12	2	1	3	0	9	9
86	2	2	4	4	4	8	0	0	0	1	12	13
87	0	1	1	1	1	2	0	2	2	1	5	6
88	0	1	1	1	0	1	4	1	5	1	8	9
89	1	5	6	1	1	2	1	0	1	-	8	8
90	0	6	6	2	1	3	-	1	1	-	9	9
91	0	4	4	1	1	2	-	1	1	-	9	9
92	1	3	4	1	1	2	-	1	1	-	8	8
93	-	2	2	-	1	1	-	0	0	-	4	4
94	-	2	2	-	2	2	-	0	0	-	10	10

Appendix table 6 (cont'd)

Set no.	10			11			12			14		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
95	-	0	0	-	0	0	-	1	1	-	6	6
96	-	0	0	-	2	2	-	0	0	-	3	3
97	-	0	0	-	0	0	-	1	1	-	6	6
98	-	2	2	-	0	0	-	0	0	-	1	1
99	-	0	0	-	0	0	-	1	1	-	5	5
100	-	2	2	-	1	1	-	1	1	-	5	5
101	-	1	1	-	1	1	-	0	0	-	3	3
102	-	1	1	-	1	1	-	0	0	-	2	2
103	-	3	3	-	-	-	-	0	0	-	2	2
104	-	0	0	-	-	-	-	1	1	-	3	3
105	-	1	1	-	-	-	-	-	-	-	5	5
106	-	2	2	-	-	-	-	-	-	-	1	1
107	-	0	0	-	-	-	-	-	-	-	1	1
108	-	1	1	-	-	-	-	-	-	-	0	0
109	-	0	0	-	-	-	-	-	-	-	0	0
110	-	0	0	-	-	-	-	-	-	-	0	0
111	-	0	0	-	-	-	-	-	-	-	1	1
112	-	0	0	-	-	-	-	-	-	-	-	-
113	-	1	1	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	33	131	164	81	135	216	39	50	89	27	184	211

Appendix table 6 (cont'd)

Set no.	15			16			17			18		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	1	-	1	-	-	-	-	-	-
55	-	-	-	0	-	0	2	-	2	-	-	-
56	-	-	-	0	-	0	0	1	1	-	-	-
57	-	-	-	0	-	0	1	0	1	-	-	-
58	-	-	-	0	-	0	0	0	0	-	-	-
59	-	-	-	0	-	0	0	4	4	-	-	-
60	-	-	-	0	-	0	0	0	0	-	-	-
61	-	-	-	0	2	2	0	1	1	-	1	1
62	-	-	-	1	0	1	1	1	2	-	0	0
63	-	-	-	1	4	5	1	4	5	-	0	0
64	-	-	-	2	2	4	1	2	3	-	0	0
65	-	1	1	0	1	1	2	3	5	-	0	0
66	-	0	0	3	5	8	0	5	5	-	0	0
67	-	2	2	2	6	8	1	3	4	-	2	2
68	-	1	1	2	5	7	2	3	5	-	1	1
69	-	1	1	2	10	12	2	4	6	-	0	0
70	1	2	3	4	10	14	5	4	9	-	0	0
71	0	2	2	1	13	14	3	8	11	-	0	0
72	0	3	3	2	6	8	2	6	8	-	0	0
73	2	2	4	4	12	16	7	5	12	1	0	1
74	0	4	4	4	18	22	3	4	7	0	1	1
75	0	2	2	6	15	21	0	5	5	0	0	0
76	2	3	5	1	13	14	3	6	9	1	0	1
77	0	5	5	4	11	15	2	3	5	0	1	1
78	0	7	7	1	11	12	1	2	3	0	1	1
79	3	7	10	1	14	15	3	6	9	1	0	1
80	0	9	9	4	6	10	2	3	5	0	1	1
81	1	9	10	3	8	11	3	3	6	1	0	1
82	1	10	11	2	8	10	2	4	6	1	0	1
83	1	9	10	1	8	9	5	0	5	0	1	1
84	2	12	14	2	9	11	2	2	4	0	0	0
85	3	8	11	4	6	10	1	1	2	0	0	0
86	1	5	6	0	9	9	1	1	2	0	2	2
87	1	9	10	0	7	7	0	1	1	0	0	0
88	0	10	10	0	8	8	1	1	2	0	0	0
89	1	12	13	1	5	6	0	0	0	0	1	1
90	-	9	9	-	2	2	1	0	1	0	0	0
91	-	7	7	-	4	4	0	1	1	0	0	0
92	-	7	7	-	4	4	0	1	1	1	0	1
93	-	3	3	-	3	3	1	2	3	-	1	1
94	-	5	5	-	4	4	-	3	3	-	0	0

Appendix table 6 (cont'd)

Set no. / Fork length (cm)	15			16			17			18		
	M	F	T	M	F	T	M	F	T	M	F	T
95	-	5	5	-	1	1	-	-	-	-	1	1
96	-	3	3	-	2	2	-	-	-	-	-	-
97	-	2	2	-	2	2	-	-	-	-	-	-
98	-	5	5	-	2	2	-	-	-	-	-	-
99	-	1	1	-	2	2	-	-	-	-	-	-
100	-	2	2	-	2	2	-	-	-	-	-	-
101	-	1	1	-	1	1	-	-	-	-	-	-
102	-	0	0	-	1	1	-	-	-	-	-	-
103	-	1	1	-	1	1	-	-	-	-	-	-
104	-	0	0	-	0	0	-	-	-	-	-	-
105	-	1	1	-	0	0	-	-	-	-	-	-
106	-	-	-	-	1	1	-	-	-	-	-	-
107	-	-	-	-	2	2	-	-	-	-	-	-
108	-	-	-	-	0	0	-	-	-	-	-	-
109	-	-	-	-	0	0	-	-	-	-	-	-
110	-	-	-	-	0	0	-	-	-	-	-	-
111	-	-	-	-	0	0	-	-	-	-	-	-
112	-	-	-	-	1	1	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	19	187	206	59	267	326	61	103	164	6	14	20

Appendix table 6 (cont'd)

Set no.	21			22			23			24		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	1	1	-	-	-	-	-	-
66	-	-	-	-	0	0	-	-	-	-	-	-
67	-	-	-	-	0	0	-	-	-	-	-	-
68	-	-	-	-	0	0	-	-	-	-	-	-
69	-	-	-	-	0	0	-	-	-	-	-	-
70	-	-	-	-	0	0	-	-	-	-	-	-
71	-	-	-	-	0	0	-	-	-	-	-	-
72	-	-	-	-	0	0	-	-	-	-	-	-
73	-	-	-	-	0	0	-	-	-	-	-	-
74	-	-	-	-	0	0	-	-	-	-	-	-
75	-	-	-	-	0	0	-	-	-	-	-	-
76	1	-	1	-	0	0	-	-	-	-	-	-
77	-	-	0	-	0	0	-	-	-	-	-	-
78	-	-	0	-	0	0	-	-	-	-	-	-
79	-	-	0	-	0	0	-	-	-	-	-	-
80	-	-	0	-	2	2	-	-	-	-	-	-
81	-	-	0	-	1	1	-	-	-	-	-	-
82	-	-	0	-	0	0	-	-	-	-	-	-
83	-	-	0	-	2	2	-	-	-	-	-	-
84	-	-	0	-	2	2	-	-	-	-	-	-
85	-	-	0	1	1	2	-	-	-	-	-	-
86	-	1	1	-	0	0	-	-	-	-	-	-
87	-	2	2	-	2	2	-	-	-	-	-	-
88	-	0	0	-	0	0	-	-	-	-	-	-
89	-	0	0	-	5	5	-	-	-	-	-	-
90	-	0	0	-	3	3	-	-	-	-	-	-
91	-	0	0	-	1	1	-	-	-	-	-	-
92	-	2	2	-	3	3	-	-	-	-	-	-
93	-	0	0	-	6	6	-	-	-	-	-	-
94	-	1	1	-	2	2	-	-	-	-	1	1

Appendix table 6 (cont'd)

Set no. / Fork length (cm)	21			22			23			24		
	M	F	T	M	F	T	M	F	T	M	F	T
95	-	0	0	-	1	1	-	-	-	-	1	1
96	-	0	0	-	4	4	-	1	1	-	0	0
97	-	0	0	-	3	3	-	0	0	-	0	0
98	-	0	0	-	5	5	-	0	0	-	2	2
99	-	0	0	-	5	5	-	0	0	-	2	2
100	-	2	2	-	6	6	-	0	0	-	1	1
101	-	0	0	-	3	3	-	0	0	-	2	2
102	-	2	2	-	4	4	-	0	0	-	4	4
103	-	0	0	-	2	2	-	1	1	-	1	1
104	-	2	2	-	4	4	-	-	-	-	4	4
105	-	0	0	-	1	1	-	-	-	-	1	1
106	-	1	1	-	1	1	-	-	-	-	1	1
107	-	0	0	-	3	3	-	-	-	-	0	0
108	-	0	0	-	0	0	-	-	-	-	1	1
109	-	0	0	-	1	1	-	-	-	-	1	1
110	-	0	0	-	-	-	-	-	-	-	1	1
111	-	0	0	-	-	-	-	-	-	-	-	-
112	-	0	0	-	-	-	-	-	-	-	-	-
113	-	0	0	-	-	-	-	-	-	-	-	-
114	-	0	0	-	-	-	-	-	-	-	-	-
115	-	1	1	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	14	15	1	74	75	0	2	2	0	23	23

Appendix table 6 (cont'd)

Set no.	25			26			27			28		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	1	-	1	-	-	-
65	-	-	-	-	-	-	0	-	0	-	-	-
66	-	-	-	-	-	-	0	-	0	-	-	-
67	-	-	-	-	-	-	0	-	0	-	-	-
68	-	-	-	-	-	-	0	-	0	-	-	-
69	-	-	-	-	-	-	0	-	0	-	-	-
70	-	-	-	-	-	-	1	-	1	-	-	-
71	-	-	-	-	-	-	1	-	1	-	-	-
72	-	-	-	-	-	-	0	-	0	-	-	-
73	-	-	-	-	-	-	0	1	1	-	-	-
74	1	-	1	-	-	-	2	0	2	-	1	1
75	0	-	0	-	-	-	0	0	0	-	0	0
76	1	-	1	-	-	-	2	0	2	-	1	1
77	-	-	0	-	-	-	0	0	0	-	1	1
78	-	-	0	-	-	-	2	0	2	1	1	2
79	-	-	0	1	-	1	1	0	1	-	0	0
80	-	-	0	-	-	0	2	0	2	-	1	1
81	-	-	0	-	-	0	2	0	2	-	1	1
82	-	-	0	-	-	0	1	0	1	-	2	2
83	-	-	0	-	-	0	0	1	1	-	0	0
84	-	-	0	-	-	0	1	0	1	-	0	0
85	-	-	0	-	-	0	0	1	1	-	1	1
86	-	-	0	-	1	1	1	0	1	-	0	0
87	-	-	0	-	1	1	2	0	2	-	1	1
88	-	-	0	-	1	1	-	1	1	-	3	3
89	-	1	1	-	0	0	-	0	0	-	1	1
90	-	1	1	-	1	1	-	0	0	-	5	5
91	-	0	0	-	1	1	-	1	1	-	3	3
92	-	0	0	-	0	0	-	3	3	-	1	1
93	-	1	1	-	2	2	-	2	2	-	3	3
94	-	0	0	-	1	1	-	1	1	-	2	2

Appendix table 6 (cont'd)

Set no. / Fork length (cm)	25			26			27			28		
	M	F	T	M	F	T	M	F	T	M	F	T
95	-	1	1	-	1	1	-	1	1	-	3	3
96	-	0	0	-	0	0	-	0	0	-	3	3
97	-	0	0	-	2	2	-	3	3	-	3	3
98	-	0	0	-	3	3	-	4	4	-	2	2
99	-	0	0	-	4	4	-	1	1	-	4	4
100	-	0	0	-	5	5	-	1	1	-	3	3
101	-	1	1	-	0	0	-	1	1	-	0	0
102	-	0	0	-	3	3	-	1	1	-	3	3
103	-	1	1	-	0	0	-	0	0	-	4	4
104	-	0	0	-	1	1	-	1	1	-	1	1
105	-	1	1	-	0	0	-	1	1	-	1	1
106	-	-	-	-	1	1	-	1	1	-	3	3
107	-	-	-	-	0	0	-	0	0	-	2	2
108	-	-	-	-	0	0	-	0	0	-	0	0
109	-	-	-	-	0	0	-	0	0	-	0	0
110	-	-	-	-	0	0	-	1	1	-	0	0
111	-	-	-	-	2	2	-	-	-	-	0	0
112	-	-	-	-	-	-	-	-	-	-	0	0
113	-	-	-	-	-	-	-	-	-	-	2	2
114	-	-	-	-	-	-	-	-	-	-	0	0
115	-	-	-	-	-	-	-	-	-	-	0	0
116	-	-	-	-	-	-	-	-	-	-	0	0
117	-	-	-	-	-	-	-	-	-	-	1	1
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	7	9	1	30	31	19	27	46	1	63	64

Appendix table 6 (cont'd)

Set no. Fork length (cm)	29			30			31			32		
	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	1	1
64	-	-	-	-	-	-	-	-	-	2	1	3
65	-	-	-	-	-	-	-	-	-	0	0	0
66	-	-	-	-	-	-	-	-	-	0	1	1
67	-	-	-	-	-	-	-	-	-	3	2	5
68	-	-	-	-	-	-	-	-	-	1	1	2
69	-	-	-	-	-	-	-	-	-	0	2	2
70	-	-	-	-	-	-	-	-	-	0	4	4
71	-	-	-	-	-	-	-	-	-	0	11	11
72	-	-	-	-	-	-	-	-	-	0	6	6
73	-	-	-	-	-	-	-	-	-	1	9	10
74	-	-	-	-	-	-	-	-	-	3	8	11
75	-	-	-	-	-	-	-	-	-	0	7	7
76	-	-	-	-	-	-	-	-	-	1	8	9
77	-	-	-	1	-	1	-	-	-	1	7	8
78	-	-	-	-	-	0	-	-	-	0	4	4
79	-	-	-	-	1	1	-	-	-	0	6	6
80	-	-	-	-	0	0	-	-	-	0	8	8
81	-	-	-	-	1	1	-	-	-	1	5	6
82	-	-	-	-	0	0	-	-	-	-	9	9
83	-	-	-	-	0	0	-	-	-	-	4	4
84	-	-	-	-	2	2	-	-	-	-	5	5
85	-	-	-	-	1	1	-	-	-	-	4	4
86	-	-	-	-	2	2	-	1	1	-	3	3
87	-	-	-	-	1	1	-	0	0	-	6	6
88	-	-	-	-	0	0	-	0	0	-	3	3
89	-	-	-	-	1	1	-	0	0	-	2	2
90	-	-	-	-	4	4	-	1	1	-	1	1
91	-	-	-	-	2	2	-	0	0	-	2	2
92	-	-	-	-	1	1	-	0	0	-	2	2
93	-	2	2	-	4	4	-	0	0	-	2	2
94	-	0	0	-	1	1	-	0	0	-	2	2

Appendix table 6 (cont'd)

Set no.	29			30			31			32		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
95	-	0	0	-	1	1	-	0	0	-	0	0
96	-	0	0	-	3	3	-	1	1	-	0	0
97	-	1	1	-	1	1	-	0	0	-	1	1
98	-	0	0	-	2	2	-	0	0	-	1	1
99	-	0	0	-	4	4	-	0	0	-	2	2
100	-	0	0	-	1	1	-	0	0	-	0	0
101	-	0	0	-	3	3	-	0	0	-	0	0
102	-	0	0	-	1	1	-	1	1	-	0	0
103	-	0	0	-	5	5	-	0	0	-	2	2
104	-	0	0	-	1	1	-	0	0	-	0	0
105	-	1	1	-	2	2	-	0	0	-	0	0
106	-	0	0	-	5	5	-	0	0	-	1	1
107	-	1	1	-	1	1	-	0	0	-	1	1
108	-	1	1	-	1	1	-	1	1	-	0	0
109	-	1	1	-	3	3	-	0	0	-	0	0
110	-	-	-	-	0	0	-	1	1	-	0	0
111	-	-	-	-	0	0	-	1	1	-	0	0
112	-	-	-	-	0	0	-	-	-	-	1	1
113	-	-	-	-	0	0	-	-	-	-	0	0
114	-	-	-	-	0	0	-	-	-	-	0	0
115	-	-	-	-	0	0	-	-	-	-	0	0
116	-	-	-	-	0	0	-	-	-	-	1	1
117	-	-	-	-	0	0	-	-	-	-	-	-
118	-	-	-	-	0	0	-	-	-	-	-	-
119	-	-	-	-	0	0	-	-	-	-	-	-
120	-	-	-	-	0	0	-	-	-	-	-	-
121	-	-	-	-	1	1	-	-	-	-	-	-
Total	0	7	7	1	56	57	0	7	7	13	146	159

Appendix table 6 (cont'd)

Set no.	33			34			35			36		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	1	1	-	-	-	1	-	1	-	-	-
60	-	0	0	1	1	2	0	-	0	-	-	-
61	-	0	0	0	0	0	0	-	0	-	-	-
62	-	0	0	0	0	0	0	-	0	-	-	-
63	-	1	1	0	0	0	0	-	0	-	-	-
64	-	1	1	0	0	0	0	-	0	-	-	-
65	-	1	1	1	0	1	0	-	0	-	-	-
66	1	1	2	0	1	1	0	1	1	-	-	-
67	1	1	2	2	1	3	0	0	0	-	-	-
68	1	1	2	0	1	1	0	0	0	-	-	-
69	0	1	1	0	2	2	0	0	0	-	-	-
70	1	0	1	1	0	1	0	0	0	-	-	-
71	0	3	3	0	1	1	0	0	0	-	-	-
72	0	2	2	1	4	5	0	0	0	-	-	-
73	0	1	1	0	5	5	0	3	3	3	-	3
74	1	3	4	0	2	2	0	1	1	1	-	1
75	3	7	10	0	4	4	0	0	0	1	-	1
76	4	6	10	0	2	2	0	0	0	0	-	0
77	2	7	9	1	4	5	1	1	2	0	-	0
78	1	3	4	1	5	6	1	1	2	2	1	3
79	4	2	6	1	2	3	0	0	0	0	0	0
80	4	7	11	0	6	6	0	1	1	5	0	5
81	2	4	6	0	6	6	0	2	2	0	0	0
82	1	5	6	1	9	10	0	2	2	1	1	2
83	2	5	7	1	3	4	1	0	1	0	0	0
84	2	8	10	0	4	4	0	1	1	0	0	0
85	1	4	5	0	3	3	0	2	2	1	0	1
86	3	4	7	0	4	4	0	0	0	-	0	0
87	1	7	8	0	4	4	1	1	2	-	0	0
88	-	5	5	0	3	3	-	1	1	-	3	3
89	-	3	3	1	4	5	-	2	2	-	0	0
90	-	3	3	-	2	2	-	1	1	-	1	1
91	-	1	1	-	2	2	-	4	4	-	1	1
92	-	0	0	-	3	3	-	2	2	-	1	1
93	-	6	6	-	2	2	-	2	2	-	3	3
94	-	1	1	-	1	1	-	2	2	-	1	1

Appendix table 6 (cont'd)

Set no. / Fork length (cm)	33			34			35			36		
	M	F	T	M	F	T	M	F	T	M	F	T
95	-	1	1	-	3	3	-	1	1	-	0	0
96	-	2	2	-	2	2	-	4	4	-	0	0
97	-	0	0	-	0	0	-	3	3	-	0	0
98	-	0	0	-	2	2	-	4	4	-	3	3
99	-	6	6	-	2	2	-	2	2	-	1	1
100	-	3	3	-	1	1	-	2	2	-	1	1
101	-	1	1	-	0	0	-	4	4	-	0	0
102	-	3	3	-	1	1	-	1	1	-	0	0
103	-	2	2	-	-	-	-	0	0	-	0	0
104	-	1	1	-	-	-	-	2	2	-	1	1
105	-	0	0	-	-	-	-	0	0	-	0	0
106	-	1	1	-	-	-	-	0	0	-	0	0
107	-	1	1	-	-	-	-	0	0	-	0	0
108	-	0	0	-	-	-	-	0	0	-	1	1
109	-	1	1	-	-	-	-	0	0	-	0	0
110	-	-	-	-	-	-	-	0	0	-	0	0
111	-	-	-	-	-	-	-	0	0	-	1	1
112	-	-	-	-	-	-	-	0	0	-	-	-
113	-	-	-	-	-	-	-	0	0	-	-	-
114	-	-	-	-	-	-	-	0	0	-	-	-
115	-	-	-	-	-	-	-	1	1	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	35	127	162	12	102	114	5	54	59	14	20	34

Appendix table 6 (cont'd)

Set no.	37			38			39			40		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	1	1	-	-	-	-	-	-
57	-	-	-	-	0	0	-	-	-	-	1	1
58	-	-	-	-	0	0	-	-	-	-	0	0
59	-	-	-	-	1	1	-	-	-	2	0	2
60	-	-	-	-	0	0	-	-	-	0	0	0
61	-	-	-	-	0	0	-	-	-	0	2	2
62	-	-	-	-	0	0	-	1	1	1	1	2
63	-	-	-	-	0	0	-	1	1	0	0	0
64	-	-	-	-	0	0	-	4	4	1	3	4
65	-	-	-	-	0	0	1	2	3	2	2	4
66	-	-	-	-	0	0	0	3	3	1	0	1
67	-	-	-	-	0	0	0	5	5	3	2	5
68	-	-	-	-	0	0	3	5	8	2	3	5
69	-	-	-	-	0	0	1	8	9	2	5	7
70	-	-	-	-	1	1	3	8	11	2	2	4
71	-	-	-	-	0	0	1	6	7	4	3	7
72	-	-	-	-	0	0	3	7	10	4	2	6
73	-	-	-	-	0	0	2	6	8	6	6	12
74	-	-	-	-	0	0	0	7	7	5	8	13
75	-	-	-	-	0	0	1	9	10	5	10	15
76	-	-	-	-	0	0	3	6	9	2	8	10
77	-	-	-	-	1	1	1	5	6	3	9	12
78	-	-	-	-	0	0	1	14	15	10	5	15
79	-	-	-	-	1	1	0	13	13	4	5	9
80	-	-	-	-	1	1	1	6	7	4	5	9
81	-	-	-	-	3	3	0	3	3	4	1	5
82	-	-	-	-	1	1	0	11	11	5	1	6
83	-	2	2	-	2	2	0	3	3	3	2	5
84	-	0	0	-	3	3	1	4	5	1	0	1
85	-	0	0	-	1	1	1	2	3	2	9	11
86	-	0	0	-	1	1	1	3	4	2	1	3
87	-	0	0	-	3	3	-	6	6	0	2	2
88	-	1	1	-	1	1	-	5	5	1	3	4
89	-	2	2	-	1	1	-	3	3	-	5	5
90	-	6	6	-	0	0	-	0	0	-	1	1
91	-	3	3	-	3	3	-	3	3	-	2	2
92	-	2	2	-	5	5	-	2	2	-	1	1
93	-	3	3	-	6	6	-	4	4	-	1	1
94	-	5	5	-	2	2	-	0	0	-	1	1

Appendix table 6 (cont'd)

Set no. Fork length (cm)	37			38			39			40		
	M	F	T	M	F	T	M	F	T	M	F	T
95	[illegible]	6	6	[illegible]	4	4	[illegible]	0	0	[illegible]	0	0
96	[illegible]	6	6	[illegible]	5	5	[illegible]	2	2	[illegible]	2	2
97	[illegible]	4	4	[illegible]	5	5	[illegible]	0	0	[illegible]	0	0
98	[illegible]	5	5	[illegible]	6	6	[illegible]	2	2	[illegible]	0	0
99	[illegible]	3	3	[illegible]	5	5	[illegible]	[illegible]	[illegible]	[illegible]	0	0
100	[illegible]	5	5	[illegible]	5	5	[illegible]	[illegible]	[illegible]	[illegible]	2	2
101	[illegible]	2	2	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	1	1
102	[illegible]	6	6	[illegible]	3	3	[illegible]	[illegible]	[illegible]	[illegible]	1	1
103	[illegible]	4	4	[illegible]	3	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
104	[illegible]	3	3	[illegible]	3	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
105	[illegible]	5	5	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
106	[illegible]	3	3	[illegible]	2	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
107	[illegible]	3	3	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
108	[illegible]	4	4	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
109	[illegible]	5	5	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
110	[illegible]	3	3	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
111	[illegible]	2	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
112	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
113	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
114	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
115	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
116	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
117	[illegible]	2	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
118	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
119	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
120	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
121	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	0	99	99	0	82	82	24	169	193	81	118	199

Appendix table 6 (cont'd)

Set no. / Fork length (cm)	41			42			43			44		
	M	F	T	M	F	T	M	F	T	M	F	T
52												
53												
54												
55												
56	2	1	3									
57	1	1	2									
58	0	1	1									
59	1	2	3									
60	2	2	4									
61	2	4	6									
62	0	4	4									
63	3	2	5									
64	1	2	3	1		1						
65	2	6	8	0		0						
66	0	5	5	0		0						
67	3	3	6	0		0						
68	2	5	7	0		0	1		1			
69	1	3	4	0	1	1	0		0			
70	3	6	9	0		0	0		0		1	1
71	6	3	9	0		0	0		0		1	1
72	2	2	4	1		1	0		0	1	1	2
73	6	4	10	1		1	1		1	0	2	2
74	2	7	9	0		0	0		0	1	5	6
75	5	1	6	0		0	0		0	0	4	4
76	9	2	11	0		0	0	1	1	0	2	2
77	3	5	8	0		0	1	1	2	0	4	4
78	12	3	15	1		1	0	1	1	0	9	9
79	9	5	14	1		1	1	0	1	0	6	6
80	4	3	7	0		0	0	0	0	1	3	4
81	9	4	13	1		1	0	0	0	0	5	5
82	3	1	4	1		1	0	0	0	0	4	4
83	7	4	11	1		1	2	0	2	1	6	7
84	3	2	5	2		2	1	0	1	0	5	5
85	3	0	3				0	0	0	0	6	6
86	1	1	2				0	0	0	0	15	15
87	1	0	1				0	0	0	0	4	4
88	0	0	0				1	0	1	0	6	6
89	1	1	2					0	0	0	5	5
90	1	0	1					2	2	0	4	4
91		1	1					0	0	0	7	7
92		1	1					0	0	0	5	5
93		1	1					0	0	0	11	11
94		0	0					0	0	1	4	5

Appendix table 6 (cont'd)

Set no.	41			42			43			44		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
95	-	1	1	-	-	-	-	0	0	-	9	9
96	-	0	0	-	-	-	-	1	1	-	7	7
97	-	0	0	-	-	-	-	-	-	-	5	5
98	-	0	0	-	-	-	-	-	-	-	9	9
99	-	0	0	-	-	-	-	-	-	-	5	5
100	-	1	1	-	-	-	-	-	-	-	3	3
101	-	-	-	-	-	-	-	-	-	-	2	2
102	-	-	-	-	-	-	-	-	-	-	2	2
103	-	-	-	-	-	-	-	-	-	-	5	5
104	-	-	-	-	-	-	-	-	-	-	6	6
105	-	-	-	-	-	-	-	-	-	-	1	1
106	-	-	-	-	-	-	-	-	-	-	2	2
107	-	-	-	-	-	-	-	-	-	-	1	1
108	-	-	-	-	-	-	-	-	-	-	1	1
109	-	-	-	-	-	-	-	-	-	-	0	0
110	-	-	-	-	-	-	-	-	-	-	1	1
111	-	-	-	-	-	-	-	-	-	-	2	2
112	-	-	-	-	-	-	-	-	-	-	0	0
113	-	-	-	-	-	-	-	-	-	-	0	0
114	-	-	-	-	-	-	-	-	-	-	0	0
115	-	-	-	-	-	-	-	-	-	-	1	1
116	-	-	-	-	-	-	-	-	-	-	0	0
117	-	-	-	-	-	-	-	-	-	-	1	1
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	110	100	210	10	1	11	8	6	14	5	188	193

Appendix table 6 (cont'd)

Set no. / Fork length (cm)	45			46			47			48		
	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	1	1	-	-	-
64	-	-	-	-	-	-	-	0	0	-	-	-
65	-	-	-	-	-	-	-	0	0	-	-	-
66	-	-	-	-	1	1	-	1	1	-	-	-
67	-	-	-	-	1	1	1	1	2	-	-	-
68	-	-	-	-	0	0	0	1	1	-	1	1
69	-	-	-	-	0	0	1	3	4	-	0	0
70	-	-	-	1	0	1	0	2	2	-	2	2
71	-	1	1	0	2	2	1	1	2	-	1	1
72	-	0	0	0	3	3	0	5	5	-	1	1
73	-	0	0	1	3	4	0	1	1	1	0	1
74	-	1	1	0	1	1	1	1	2	0	1	1
75	-	1	1	1	2	3	1	9	10	0	2	2
76	-	0	0	-	3	3	0	5	5	0	4	4
77	-	1	1	-	2	2	0	8	8	0	4	4
78	-	1	1	-	0	0	0	6	6	1	5	6
79	-	1	1	-	3	3	1	5	6	0	3	3
80	-	0	0	-	4	4	0	9	9	2	7	9
81	-	5	5	-	6	6	0	5	5	1	8	9
82	-	3	3	-	1	1	0	8	8	1	5	6
83	-	2	2	-	1	1	0	7	7	0	5	5
84	-	1	1	-	0	0	0	4	4	0	6	6
85	-	2	2	-	5	5	0	6	6	0	1	1
86	-	4	4	-	3	3	0	4	4	0	2	2
87	-	2	2	-	3	3	0	4	4	1	5	6
88	-	1	1	-	3	3	0	3	3	0	6	6
89	-	2	2	-	1	1	0	2	2	0	8	8
90	-	1	1	-	2	2	0	6	6	1	5	6
91	-	2	2	-	2	2	1	3	4	-	5	5
92	-	4	4	-	2	2	-	4	4	-	3	3
93	-	5	5	-	4	4	-	2	2	-	6	6
94	-	3	3	-	1	1	-	2	2	-	4	4

Appendix table 6 (cont'd)

Set no.	45			46			47			48		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
95	-	0	0	-	1	1	-	1	1	-	1	1
96	-	3	3	-	1	1	-	1	1	-	4	4
97	-	3	3	-	0	0	-	6	6	-	1	1
98	-	2	2	-	3	3	-	4	4	-	4	4
99	-	2	2	-	1	1	-	8	8	-	2	2
100	-	1	1	-	2	2	-	2	2	-	1	1
101	-	3	3	-	2	2	-	1	1	-	2	2
102	-	0	0	-	1	1	-	2	2	-	2	2
103	-	0	0	-	1	1	-	1	1	-	2	2
104	-	1	1	-	1	1	-	0	0	-	1	1
105	-	0	0	-	0	0	-	3	3	-	1	1
106	-	0	0	-	0	0	-	0	0	-	2	2
107	-	2	2	-	1	1	-	0	0	-	2	2
108	-	0	0	-	0	0	-	0	0	-	1	1
109	-	0	0	-	0	0	-	0	0	-	0	0
110	-	1	1	-	1	1	-	0	0	-	0	0
111	-	-	-	-	-	-	-	0	0	-	1	1
112	-	-	-	-	-	-	-	0	0	-	-	-
113	-	-	-	-	-	-	-	0	0	-	-	-
114	-	-	-	-	-	-	-	0	0	-	-	-
115	-	-	-	-	-	-	-	0	0	-	-	-
116	-	-	-	-	-	-	-	1	1	-	-	-
117	-	-	-	-	-	-	-	1	1	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	61	61	3	74	77	7	150	157	8	127	135

Appendix table 6 (cont'd)

Set no.	49			51			52			53		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	1	1	-	-	-	-	-	-
63	-	-	-	-	1	1	-	-	-	-	-	-
64	-	-	-	-	0	0	-	1	1	-	-	-
65	-	-	-	-	0	0	1	0	1	-	-	-
66	-	-	-	-	2	2	0	0	0	-	-	-
67	-	-	-	-	2	2	0	0	0	-	-	-
68	-	-	-	-	0	0	0	0	0	-	-	-
69	-	-	-	-	1	1	1	2	3	-	-	-
70	-	-	-	-	2	2	0	1	1	-	-	-
71	-	1	1	-	4	4	0	1	1	-	-	-
72	-	2	2	-	5	5	1	2	3	-	-	-
73	-	2	2	-	2	2	0	6	6	1	-	1
74	-	3	3	-	1	1	0	2	2	0	-	0
75	-	2	2	4	3	7	0	1	1	0	-	0
76	-	2	2	1	1	2	0	4	4	0	-	0
77	-	3	3	0	1	1	0	3	3	0	-	0
78	-	2	2	0	8	8	1	5	6	2	-	2
79	-	3	3	0	3	3	-	4	4	-	-	0
80	-	5	5	1	5	6	-	9	9	-	-	0
81	-	3	3	0	2	2	-	3	3	-	-	0
82	1	6	7	1	0	1	-	3	3	-	-	0
83	1	5	6	0	1	1	-	5	5	-	-	0
84	-	3	3	1	4	5	-	2	2	-	-	0
85	-	2	2	-	4	4	-	5	5	-	-	0
86	-	3	3	-	3	3	-	2	2	-	-	0
87	-	5	5	-	0	0	-	3	3	-	-	0
88	-	3	3	-	4	4	-	1	1	-	-	0
89	-	3	3	-	2	2	-	1	1	-	1	1
90	-	5	5	-	4	4	-	3	3	-	0	0
91	-	8	8	-	2	2	-	1	1	-	1	1
92	-	4	4	-	3	3	-	2	2	-	0	0
93	-	3	3	-	2	2	-	2	2	-	3	3
94	-	5	5	-	3	3	-	3	3	-	1	1

Appendix table 6 (cont'd)

Set no.	49			51			52			53		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
95	-	7	7	-	1	1	-	0	0	-	0	0
96	-	1	1	-	2	2	-	0	0	-	1	1
97	-	6	6	-	1	1	-	1	1	-	0	0
98	-	3	3	-	1	1	-	1	1	-	1	1
99	-	4	4	-	1	1	-	0	0	-	0	0
100	-	2	2	-	5	5	-	0	0	-	0	0
101	-	2	2	-	1	1	-	0	0	-	0	0
102	-	4	4	-	0	0	-	1	1	-	0	0
103	-	0	0	-	0	0	-	0	0	-	0	0
104	-	1	1	-	0	0	-	2	2	-	2	2
105	-	1	1	-	2	2	-	0	0	-	-	-
106	-	1	1	-	0	0	-	0	0	-	-	-
107	-	3	3	-	1	1	-	1	1	-	-	-
108	-	1	1	-	1	1	-	1	1	-	-	-
109	-	1	1	-	0	0	-	-	-	-	-	-
110	-	-	-	-	0	0	-	-	-	-	-	-
111	-	-	-	-	1	1	-	-	-	-	-	-
112	-	-	-	-	0	0	-	-	-	-	-	-
113	-	-	-	-	2	2	-	-	-	-	-	-
114	-	-	-	-	0	0	-	-	-	-	-	-
115	-	-	-	-	0	0	-	-	-	-	-	-
116	-	-	-	-	0	0	-	-	-	-	-	-
117	-	-	-	-	0	0	-	-	-	-	-	-
118	-	-	-	-	1	1	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	120	122	8	96	104	4	84	88	3	10	13

Appendix table 6 (cont'd)

Set no. Fork length (cm)	54			55			56			57		
	M	F	T	M	F	T	M	F	T	M	F	T
52												
53												
54												
55												
56												
57												
58												
59												
60												
61												
62												
63												
64												
65												
66												
67												
68												
69	1		1									
70	0		0	1		1	1		1			
71	0		0	0		0	0		0			
72	1		1	0		0	0		0			
73	0		0	0		0	0		0			
74	0		0	0		0	0		0			
75	0		0	2		2	0		0			
76	0		0	1		1	0		0			
77	1		1	0		0	0		0			
78	0		0	2		2	0		0		1	1
79	1		1	1		1	0		0		0	0
80	1		1	0		0	1		1		0	0
81	1		1	0		0	1		1		0	0
82	0	1	1	1		1			0		0	0
83	1	0	1	0		0			0		0	0
84		0	0	0		0			0	1	0	1
85		0	0	0		0			0		0	0
86		0	0	1		1		1	1		0	0
87		0	0			0		0	0		0	0
88		0	0			0		0	0		0	0
89		0	0			0		0	0		0	0
90		0	0			0		0	0		0	0
91		0	0			0		0	0		0	0
92		0	0		1	1		0	0		0	0
93		1	1		0	0		0	0		1	1
94		0	0		0	0		2	2			

Appendix table 6 (cont'd)

Set no.	54			55			56			57		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
95	-	0	0	-	0	0	-	0	0	-	-	-
96	-	0	0	-	0	0	-	0	0	-	-	-
97	-	0	0	-	0	0	-	1	1	-	-	-
98	-	0	0	-	0	0	-	0	0	-	-	-
99	-	0	0	-	0	0	-	0	0	-	-	-
100	-	2	2	-	0	0	-	1	1	-	-	-
101	-	-	-	-	0	0	-	0	0	-	-	-
102	-	-	-	-	0	0	-	0	0	-	-	-
103	-	-	-	-	0	0	-	0	0	-	-	-
104	-	-	-	-	1	1	-	0	0	-	-	-
105	-	-	-	-	0	0	-	0	0	-	-	-
106	-	-	-	-	0	0	-	0	0	-	-	-
107	-	-	-	-	0	0	-	0	0	-	-	-
108	-	-	-	-	0	0	-	1	1	-	-	-
109	-	-	-	-	0	0	-	-	-	-	-	-
110	-	-	-	-	1	1	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	7	4	11	9	3	12	3	6	9	1	2	3

Appendix table 6 (cont'd)

Set no.	58			59			60			61		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-
63	1	-	1	-	-	-	-	-	-	-	-	-
64	0	-	0	-	-	-	-	-	-	-	-	-
65	0	-	0	-	-	-	-	-	-	-	-	-
66	0	-	0	-	-	-	-	-	-	-	-	-
67	1	-	1	-	-	-	-	-	-	-	-	-
68	0	-	0	-	-	-	-	-	-	-	-	-
69	1	-	1	-	-	-	-	-	-	-	-	-
70	1	-	1	-	-	-	-	-	-	-	-	-
71	1	-	1	1	-	1	-	-	-	-	-	-
72	0	-	0	0	-	0	-	-	-	-	-	-
73	2	-	2	0	-	0	-	-	-	-	-	-
74	1	-	1	0	-	0	-	1	1	-	-	-
75	1	-	1	0	-	0	-	0	0	-	-	-
76	2	-	2	0	-	0	-	1	1	-	-	-
77	4	-	4	0	-	0	-	0	0	-	-	-
78	2	-	2	1	-	1	-	0	0	-	-	-
79	2	-	2	0	-	0	2	0	2	1	-	1
80	3	-	3	0	-	0	0	0	0	2	-	2
81	1	-	1	0	-	0	0	0	0	2	-	2
82	0	-	0	2	-	2	1	0	1	3	-	3
83	0	-	0	0	-	0	0	0	0	1	-	1
84	0	-	0	0	-	0	0	0	0	2	-	2
85	0	-	0	0	-	0	1	0	1	1	-	1
86	1	1	2	1	-	1	0	0	0	-	1	1
87	-	0	0	-	-	0	0	0	0	-	0	0
88	-	0	0	-	-	0	0	1	1	-	0	0
89	-	0	0	-	-	0	0	0	0	-	1	1
90	-	1	1	-	-	0	0	0	0	-	0	0
91	-	0	0	-	1	1	0	0	0	-	0	0
92	-	0	0	-	1	1	1	0	1	-	1	1
93	-	0	0	-	1	1	-	0	0	-	1	1
94	-	0	0	-	1	1	-	0	0	-	0	0

Appendix table 6 (cont'd)

Set no. Fork length (cm)	58			59			60			61		
	M	F	T	M	F	T	M	F	T	M	F	T
95	-	0	0	-	0	0	-	0	0	-	0	0
96	-	0	0	-	1	1	-	1	1	-	0	0
97	-	1	1	-	1	1	-	0	0	-	1	1
98	-	-	-	-	0	0	-	0	0	-	3	3
99	-	-	-	-	1	1	-	0	0	-	1	1
100	-	-	-	-	0	0	-	2	2	-	1	1
101	-	-	-	-	0	0	-	-	-	-	0	0
102	-	-	-	-	0	0	-	-	-	-	0	0
103	-	-	-	-	0	0	-	-	-	-	4	4
104	-	-	-	-	1	1	-	-	-	-	0	0
105	-	-	-	-	0	0	-	-	-	-	0	0
106	-	-	-	-	0	0	-	-	-	-	0	0
107	-	-	-	-	2	2	-	-	-	-	0	0
108	-	-	-	-	-	-	-	-	-	-	0	0
109	-	-	-	-	-	-	-	-	-	-	0	0
110	-	-	-	-	-	-	-	-	-	-	0	0
111	-	-	-	-	-	-	-	-	-	-	0	0
112	-	-	-	-	-	-	-	-	-	-	0	0
113	-	-	-	-	-	-	-	-	-	-	1	1
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	24	3	27	5	10	15	5	6	11	12	15	27

Appendix table 6 (cont'd)

Set no.	62			68			69			80		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-
70	-	1	1	-	-	-	1	-	1	1	-	1
71	-	0	0	-	-	-	0	-	0	0	-	0
72	-	0	0	-	-	-	0	-	0	0	-	0
73	-	0	0	-	-	-	0	-	0	0	-	0
74	1	0	1	-	1	1	0	-	0	0	-	0
75	0	0	0	-	0	0	0	-	0	0	-	0
76	0	0	0	-	0	0	0	-	0	0	-	0
77	1	1	2	-	0	0	0	-	0	0	-	0
78	0	0	0	-	0	0	0	-	0	0	-	0
79	3	0	3	-	0	0	0	-	0	0	1	1
80	0	0	0	-	1	1	0	-	0	0	0	0
81	1	0	1	-	1	1	0	-	0	0	0	0
82	1	1	2	-	0	0	0	-	0	1	0	1
83	0	1	1	1	0	1	0	-	0	-	0	0
84	0	0	0	-	0	0	1	-	1	-	0	0
85	0	0	0	-	1	1	-	-	0	-	0	0
86	1	0	1	-	1	1	-	-	0	-	0	0
87	0	0	0	-	1	1	-	-	0	-	0	0
88	0	2	2	-	1	1	-	1	1	-	0	0
89	1	0	1	-	0	0	-	0	0	-	0	0
90	-	0	0	-	2	2	-	0	0	-	2	2
91	-	0	0	-	0	0	-	0	0	-	0	0
92	-	1	1	-	0	0	-	0	0	-	0	0
93	-	0	0	-	0	0	-	0	0	-	0	0
94	-	1	1	-	0	0	-	1	1	-	0	0

Appendix table 6 (cont'd)

Set no.	62			68			69			80		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
95	-	0	0	-	0	0	-	0	0	-	0	0
96	-	2	2	-	0	0	-	0	0	-	1	1
97	-	1	1	-	0	0	-	0	0	-	0	0
98	-	2	2	-	0	0	-	0	0	-	1	1
99	-	0	0	-	0	0	-	1	1	-	1	1
100	-	0	0	-	0	0	-	-	-	-	2	2
101	-	1	1	-	0	0	-	-	-	-	0	0
102	-	2	2	-	0	0	-	-	-	-	1	1
103	-	3	3	-	0	0	-	-	-	-	0	0
104	-	0	0	-	1	1	-	-	-	-	0	0
105	-	2	2	-	0	0	-	-	-	-	0	0
106	-	2	2	-	0	0	-	-	-	-	2	2
107	-	1	1	-	0	0	-	-	-	-	-	-
108	-	0	0	-	0	0	-	-	-	-	-	-
109	-	2	2	-	1	1	-	-	-	-	-	-
110	-	0	0	-	-	-	-	-	-	-	-	-
111	-	0	0	-	-	-	-	-	-	-	-	-
112	-	2	2	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	-	-	-	-	-	-	-	-	-	-	-
Total	9	28	37	1	11	12	2	3	5	2	11	13

Appendix table 6 (cont'd)

Set no. / Fork length (cm)	81			82			83			85		
	M	F	T	M	F	T	M	F	T	M	F	T
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	1	1	-	-	-	-	-	-
54	-	-	-	-	0	0	-	-	-	-	1	1
55	-	-	-	-	0	0	-	-	-	-	-	0
56	-	1	1	-	0	0	-	-	-	-	-	0
57	-	0	0	1	1	2	-	-	-	-	-	0
58	-	0	0	0	0	0	-	-	-	-	-	0
59	-	0	0	0	0	0	-	-	-	-	-	0
60	-	0	0	0	1	1	-	-	-	-	-	0
61	-	0	0	0	0	0	-	1	1	-	-	0
62	-	0	0	0	0	0	-	0	0	-	-	0
63	-	0	0	1	2	3	-	0	0	-	-	0
64	-	0	0	1	0	1	-	0	0	-	-	0
65	-	0	0	0	2	2	-	0	0	-	-	0
66	-	0	0	3	3	6	-	0	0	-	-	0
67	-	0	0	1	2	3	-	0	0	-	-	0
68	-	1	1	2	2	4	-	1	1	-	-	0
69	-	0	0	2	4	6	-	0	0	-	-	0
70	1	0	1	1	2	3	-	1	1	-	-	0
71	0	0	0	1	2	3	-	1	1	-	-	0
72	0	0	0	1	6	7	-	0	0	-	-	0
73	0	0	0	1	0	1	-	0	0	-	-	0
74	0	0	0	2	2	4	-	1	1	-	-	0
75	0	0	0	3	0	3	-	0	0	-	-	0
76	0	0	0	0	5	5	-	0	0	-	-	0
77	0	0	0	3	2	5	2	0	2	-	-	0
78	0	0	0	3	1	4	1	0	1	-	-	0
79	0	1	1	4	1	5	1	1	2	-	-	0
80	0	0	0	5	1	6	1	1	2	-	-	0
81	0	1	1	4	2	6	0	1	1	-	-	0
82	0	0	0	7	4	11	1	0	1	-	-	0
83	0	0	0	3	4	7	1	0	1	-	-	0
84	0	0	0	2	1	3	1	2	3	-	-	0
85	1	1	2	3	1	4	0	0	0	1	-	1
86	0	0	0	2	0	2	2	0	2	-	-	-
87	1	0	1	1	1	2	1	1	2	-	-	-
88	-	1	1	0	0	0	1	1	2	-	-	-
89	-	2	2	1	1	2	-	0	0	-	-	-
90	-	0	0	1	1	2	-	0	0	-	-	-
91	-	0	0	0	1	1	-	0	0	-	-	-
92	-	1	1	0	0	0	-	1	1	-	-	-
93	-	1	1	1	0	1	-	0	0	-	-	-
94	-	0	0	-	0	0	-	1	1	-	-	-

Appendix table 6 (cont'd)

Set no. / Fork length (cm)	81			82			83			85		
	M	F	T	M	F	T	M	F	T	M	F	T
95		1	1		0	0						
96		0	0		0	0						
97		0	0		1	1						
98		0	0									
99		0	0									
100		0	0									
101		0	0									
102		0	0									
103		1	1									
104		0	0									
105		1	1									
106		2	2									
107		1	1									
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												
120												
121												
Total	3	16	19	60	57	117	12	14	26	1	1	2

Appendix table 6 (cont'd)

Set no. Fork length (cm)	86			Total		
	M	F	T	M	F	T
52					1	1
53				1	1	2
54				1	1	2
55				2	2	4
56				2	5	7
57				3	5	8
58				2	2	4
59				7	10	17
60				3	11	14
61				10	17	27
62				10	16	26
63				10	35	45
64				15	29	44
65				20	46	66
66				23	66	89
67				33	74	107
68				28	89	117
69				31	97	128
70				46	99	145
71				48	137	185
72				37	129	166
73				59	143	202
74				53	189	242
75				61	178	239
76				57	195	252
77				59	186	245
78				83	192	275
79				90	174	264
80				71	208	279
81				59	171	230
82		1	1	65	163	228
83				47	158	205
84				44	168	212
85				39	141	180
86				35	138	173
87				14	130	144
88				11	128	139
89				12	130	142
90				7	134	141
91				3	124	127
92				4	112	116
93				2	133	135
94				1	109	110

Appendix table 6 (cont'd)

Set no. Fork length (cm)	86			Total		
	M	F	T	M	F	T
95	-	-	-	-	74	74
96	-	-	-	-	94	94
97	-	-	-	-	87	87
98	-	-	-	-	100	100
99	-	-	-	-	90	90
100	-	-	-	-	91	91
101	-	-	-	-	53	53
102	-	-	-	-	67	67
103	-	-	-	-	54	54
104	-	-	-	-	49	49
105	-	-	-	-	44	44
106	-	-	-	-	37	37
107	-	-	-	-	35	35
108	-	-	-	-	17	17
109	-	-	-	-	19	19
110	-	-	-	-	14	14
111	-	-	-	-	11	11
112	-	-	-	-	8	8
113	-	-	-	-	6	6
114	-	-	-	-	1	1
115	-	-	-	-	4	4
116	-	-	-	-	2	2
117	-	-	-	-	6	6
118	-	-	-	-	2	2
119	-	-	-	-	0	0
120	-	-	-	-	0	0
121	-	-	-	-	1	1
Total	0	1	1	1208	5242	6450

Appendix table 7. Length frequency of dogfish, by set, ARCTIC HARVESTER, June 1978.

Set no.	1			2			3			4		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
35	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	1	1	-	-	-
52	-	-	-	1	-	1	-	1	1	-	-	-
53	-	-	-	0	-	0	-	2	2	-	-	-
54	-	-	-	0	-	0	-	0	0	-	-	-
55	-	-	-	0	-	0	-	0	0	-	-	-
56	-	-	-	0	-	0	-	0	0	1	1	2
57	-	2	2	0	-	0	-	0	0	0	3	3
58	-	0	0	0	-	0	1	1	2	0	1	1
59	-	1	1	1	-	1	0	1	1	0	1	1
60	1	2	3	2	-	2	2	7	9	3	1	4
61	3	2	5	0	1	1	1	3	4	3	3	6
62	4	8	12	0	2	2	0	0	0	3	3	6
63	1	2	3	1	1	2	5	2	7	2	2	4
64	2	8	10	1	2	3	2	4	6	1	1	2
65	5	4	9	0	5	5	3	8	11	2	5	7
66	4	0	4	2	3	5	7	10	17	4	4	8
67	5	24	29	2	4	6	3	7	10	1	6	7
68	6	14	20	5	2	7	6	10	16	3	7	10
69	2	10	12	3	8	11	2	3	5	4	8	12
70	7	13	20	4	1	5	5	12	17	1	8	9
71	5	9	14	5	5	10	6	6	12	2	7	9
72	3	12	15	5	7	12	4	8	12	2	10	12
73	3	8	11	4	3	7	3	7	10	1	7	8
74	8	14	22	2	6	8	2	4	6	1	11	12
75	3	12	15	4	10	14	0	6	6	3	6	9
76	4	9	13	2	1	3	0	7	7	1	6	7
77	1	8	9	1	5	6	0	3	3	2	11	13

Appendix table 7 (cont'd)

Set no.	1			2			3			4		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
78	3	12	15	0	1	1	1	5	6	1	8	9
79	2	6	8	1	2	3	1	5	6	2	6	8
80	0	9	9	1	6	7	2	5	7	3	3	6
81	0	5	5	2	2	4	2	5	7	0	5	5
82	0	3	3	0	2	2	0	5	5	1	7	8
83	0	5	5	1	3	4	0	2	2	1	5	6
84	1	2	3	0	9	9	0	4	4	4	2	6
85	0	7	7	1	1	2	3	5	8	0	0	0
86	0	1	1	0	3	3	1	8	9	3	3	6
87	0	2	2	1	2	3	1	5	6	2	5	7
88	0	3	3	"	0	0	"	3	3	0	0	0
89	1	1	2	"	3	3	"	4	4	0	3	3
90	"	2	2	"	"	"	"	1	1	1	2	3
91	"	1	1	"	"	"	"	4	4	"	2	2
92	"	1	1	"	"	"	"	2	2	"	2	2
93	"	0	0	"	"	"	"	1	1	"	2	2
94	"	1	1	"	"	"	"	2	2	"	1	1
95	"	1	1	"	"	"	"	4	4	"	1	1
96	"	"	"	"	"	"	"	0	0	"	1	1
97	"	"	"	"	"	"	"	1	1	"	1	1
98	"	"	"	"	"	"	"	1	1	"	1	1
99	"	"	"	"	"	"	"	1	1	"	0	0
100	"	"	"	"	"	"	"	"	"	"	0	0
101	"	"	"	"	"	"	"	"	"	"	2	2
102	"	"	"	"	"	"	"	"	"	"	2	2
103	"	"	"	"	"	"	"	"	"	"	2	2
104	"	"	"	"	"	"	"	"	"	"	2	2
105	"	"	"	"	"	"	"	"	"	"	0	0
106	"	"	"	"	"	"	"	"	"	"	0	0
107	"	"	"	"	"	"	"	"	"	"	1	1
108	"	"	"	"	"	"	"	"	"	"	1	1
109	"	"	"	"	"	"	"	"	"	"	0	0
110	"	"	"	"	"	"	"	"	"	"	0	0
111	"	"	"	"	"	"	"	"	"	"	0	0
112	"	"	"	"	"	"	"	"	"	"	1	1
113	"	"	"	"	"	"	"	"	"	"	0	0
114	"	"	"	"	"	"	"	"	"	"	0	0
115	"	"	"	"	"	"	"	"	"	"	1	1
116	"	"	"	"	"	"	"	"	"	"	"	"
117	"	"	"	"	"	"	"	"	"	"	"	"
118	"	"	"	"	"	"	"	"	"	"	"	"
119	"	"	"	"	"	"	"	"	"	"	"	"
Total	74	224	298	52	100	152	63	186	249	58	184	242

Appendix table 7 (cont'd)

Set no. / Fork length (cm)	5			6			7			8		
	M	F	T	M	F	T	M	F	T	M	F	T
35	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	1	-	1
54	-	-	-	-	-	-	-	-	-	0	-	0
55	-	-	-	-	-	-	-	-	-	0	2	2
56	-	-	-	-	-	-	-	-	-	0	0	0
57	-	-	-	-	-	-	-	-	-	0	3	3
58	-	-	-	-	-	-	-	-	-	1	2	3
59	-	1	1	-	-	-	-	-	-	2	0	2
60	2	0	2	-	-	-	-	-	-	2	3	5
61	1	1	2	-	-	-	-	-	-	5	1	6
62	0	0	0	-	-	-	-	-	-	4	7	11
63	1	1	2	-	-	-	-	-	-	3	9	12
64	1	0	1	-	1	1	-	-	-	4	21	25
65	1	1	2	-	0	0	-	-	-	4	19	23
66	1	2	3	-	0	0	-	-	-	10	17	27
67	1	3	4	-	0	0	-	-	-	13	20	33
68	1	1	2	-	0	0	-	-	-	11	23	34
69	0	1	1	-	0	0	-	-	-	12	26	38
70	2	5	7	-	0	0	-	-	-	17	28	45
71	0	6	6	-	0	0	-	-	-	9	35	44
72	1	4	5	-	0	0	-	-	-	18	37	55
73	1	5	6	-	0	0	-	-	-	17	31	48
74	2	5	7	-	0	0	-	-	-	23	28	51
75	1	1	2	-	0	0	-	-	-	25	28	53
76	0	6	6	-	0	0	-	-	-	25	23	48
77	1	9	10	-	0	0	-	-	-	23	22	45

Appendix table 7 (cont'd)

Set no. Fork length (cm)	5			6			7			8		
	M	F	T	M	F	T	M	F	T	M	F	T
78	0	4	4	-	1	1	-	-	-	31	24	55
79	0	5	5	-	0	0	-	-	-	28	20	48
80	0	8	8	-	0	0	-	-	-	23	14	37
81	0	2	2	-	0	0	-	-	-	19	18	37
82	3	5	8	-	0	0	1	2	3	21	8	29
83	1	3	4	-	0	0	1	0	1	23	11	34
84	1	5	6	1	0	1	1	2	3	20	12	32
85	2	5	7	-	0	0	2	2	4	11	6	17
86	1	3	4	-	0	0	1	2	3	16	8	24
87	1	1	2	-	0	0	0	1	1	10	6	16
88	1	2	3	-	0	0	0	6	6	6	2	8
89	0	1	1	-	0	0	0	5	5	2	8	10
90	0	2	2	-	0	0	1	4	5	3	3	6
91	0	2	2	-	0	0	-	7	7	4	1	5
92	1	2	3	-	0	0	-	7	7	0	0	0
93	1	1	2	-	0	0	-	6	6	2	2	4
94	-	1	1	-	0	0	-	11	11	0	1	1
95	-	1	1	-	0	0	-	18	18	1	1	2
96	-	0	0	-	1	1	-	15	15	-	1	1
97	-	1	1	-	-	-	-	10	10	-	2	2
98	-	3	3	-	-	-	-	14	14	-	0	0
99	-	0	0	-	-	-	-	11	11	-	0	0
100	-	0	0	-	-	-	-	10	10	-	0	0
101	-	0	0	-	-	-	-	14	14	-	1	1
102	-	0	0	-	-	-	-	10	10	-	0	0
103	-	0	0	-	-	-	-	5	5	-	0	0
104	-	0	0	-	-	-	-	10	10	-	1	1
105	-	0	0	-	-	-	-	5	5	-	0	0
106	-	0	0	-	-	-	-	4	4	-	0	0
107	-	0	0	-	-	-	-	5	5	-	0	0
108	-	0	0	-	-	-	-	3	3	-	0	0
109	-	0	0	-	-	-	-	1	1	-	0	0
110	-	0	0	-	-	-	-	0	0	-	1	1
111	-	1	1	-	-	-	-	1	1	-	-	-
112	-	-	-	-	-	-	-	0	0	-	-	-
113	-	-	-	-	-	-	-	1	1	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Total	29	110	139	1	3	4	7	192	199	449	536	985

Appendix table 7 (cont'd)

Set no. / Fork length (cm)	9			10			11			12		
	M	F	T	M	F	T	M	F	T	M	F	T
35	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	1	2	3	-	-	-	-	-	-
55	-	-	-	0	0	0	-	1	1	-	-	-
56	-	-	-	0	0	0	-	1	1	-	-	-
57	-	-	-	1	1	2	-	0	0	-	-	-
58	-	-	-	2	1	3	1	0	1	-	-	-
59	-	-	-	0	1	1	1	1	2	-	1	1
60	-	-	-	0	2	2	2	2	4	-	0	0
61	-	1	1	1	1	2	4	2	6	-	1	1
62	2	0	2	2	1	3	4	5	9	-	1	1
63	1	1	2	1	2	3	4	2	6	-	0	0
64	1	0	1	1	2	3	2	3	5	-	0	0
65	0	1	1	4	1	5	1	6	7	-	0	0
66	0	1	1	2	4	6	5	5	10	-	1	1
67	0	3	3	3	4	7	8	13	21	1	0	1
68	1	3	4	3	2	5	2	10	12	0	0	0
69	1	1	2	1	2	3	2	5	7	0	1	1
70	2	2	4	1	1	2	5	18	23	0	1	1
71	3	3	6	1	1	2	4	12	16	3	1	4
72	1	3	4	0	2	2	7	10	17	2	3	5
73	1	4	5	1	0	1	5	22	27	0	4	4
74	3	4	7	0	5	5	3	19	22	1	2	3
75	6	6	12	0	1	1	6	14	20	2	6	8
76	7	9	16	3	1	4	3	14	17	3	8	11
77	7	11	18	0	2	2	9	12	21	2	6	8

Appendix table 7 (cont'd)

Set no.	9			10			11			12		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
78	2	9	11	0	1	1	6	13	19	3	13	16
79	6	9	15	1	2	3	2	12	14	3	9	12
80	5	15	20	0	3	3	5	8	13	3	12	15
81	6	11	17	3	1	4	3	13	16	4	16	20
82	9	11	20	0	2	2	5	7	12	2	7	9
83	11	11	22	1	1	2	5	11	16	2	18	20
84	5	8	13	0	2	2	2	9	11	3	15	18
85	9	8	17	0	1	1	5	5	10	3	14	17
86	11	9	20	0	0	0	5	2	7	0	14	14
87	11	8	19	2	0	2	3	6	9	2	16	18
88	3	10	13	1	0	1	5	8	13	2	9	11
89	1	2	3	0	1	1	2	5	7	2	10	12
90	6	5	11	1	0	1	1	4	5	0	10	10
91	1	12	13	-	0	0	0	2	2	3	9	12
92	0	8	8	-	0	0	0	3	3	1	8	9
93	0	1	1	-	1	1	0	0	0	-	11	11
94	1	4	5	-	0	0	1	2	3	-	9	9
95	1	4	5	-	0	0	-	1	1	-	4	4
96	-	3	3	-	2	2	-	1	1	-	6	6
97	-	0	0	-	-	-	-	1	1	-	2	2
98	-	1	1	-	-	-	-	0	0	-	1	1
99	-	1	1	-	-	-	-	1	1	-	3	3
100	-	1	1	-	-	-	-	1	1	-	2	2
101	-	1	1	-	-	-	-	0	0	-	1	1
102	-	1	1	-	-	-	-	2	2	-	2	2
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Total	124	206	330	37	56	93	128	294	422	47	257	304

Appendix table 7 (cont'd)

Set no. / Fork length (cm)	13			14			15			16		
	M	F	T	M	F	T	M	F	T	M	F	T
35	-	-	-	1	-	1	-	-	-	-	-	-
36	-	-	-	0	-	0	-	-	-	-	-	-
37	-	-	-	0	-	0	-	-	-	-	-	-
38	-	-	-	0	-	0	-	-	-	-	-	-
39	-	-	-	0	-	0	-	-	-	-	-	-
40	-	-	-	0	-	0	-	-	-	-	-	-
41	-	-	-	0	-	0	-	-	-	-	-	-
42	-	-	-	0	-	0	-	-	-	-	-	-
43	-	-	-	0	-	0	-	-	-	-	-	-
44	-	-	-	0	-	0	-	-	-	-	-	-
45	-	-	-	0	-	0	-	-	-	-	-	-
46	-	-	-	0	-	0	-	-	-	-	-	-
47	-	-	-	0	-	0	-	-	-	-	-	-
48	-	-	-	0	-	0	-	-	-	-	-	-
49	-	-	-	0	-	0	-	-	-	-	-	-
50	-	-	-	0	-	0	-	-	-	-	-	-
51	-	-	-	0	-	0	-	-	-	-	-	-
52	-	-	-	0	-	0	-	-	-	-	-	-
53	-	-	-	0	-	0	-	-	-	-	-	-
54	-	-	-	0	-	0	-	1	1	-	-	-
55	-	-	-	0	-	0	1	1	2	-	-	-
56	2	-	2	0	-	0	0	0	0	-	-	-
57	0	-	0	0	1	1	2	0	2	-	-	-
58	0	-	0	0	0	0	2	1	3	-	1	1
59	3	-	3	0	0	0	0	1	1	1	0	1
60	1	1	2	1	1	2	1	3	4	0	0	0
61	0	0	0	0	0	0	4	10	14	0	0	0
62	0	0	0	0	1	1	2	5	7	0	0	0
63	0	1	1	0	3	3	2	6	8	0	0	0
64	2	3	5	0	3	3	6	8	14	0	1	1
65	1	0	1	2	3	5	7	11	18	0	0	0
66	1	2	3	0	2	2	4	18	22	1	1	2
67	0	2	2	2	4	6	3	19	22	1	2	3
68	2	3	5	3	5	8	9	12	21	0	3	3
69	2	3	5	3	7	10	7	25	32	0	3	3
70	0	3	3	1	5	6	5	12	17	0	3	3
71	1	6	7	2	5	7	9	18	27	3	2	5
72	0	5	5	1	6	7	3	13	16	2	3	5
73	0	6	6	4	1	5	5	17	22	2	2	4
74	3	4	7	1	9	10	7	16	23	0	3	3
75	4	10	14	2	7	9	4	10	14	0	0	0
76	2	5	7	3	5	8	6	19	25	0	2	2
77	3	12	15	0	8	8	1	12	13	2	4	6

Appendix table 7 (cont'd)

Set no. / Fork length (cm)	13			14			15			16		
	M	F	T	M	F	T	M	F	T	M	F	T
78	0	12	12	2	5	7	2	10	12	1	2	3
79	1	11	12	4	6	10	3	10	13	0	2	2
80	1	16	17	3	5	8	3	6	9	1	0	1
81	3	12	15	0	7	7	1	11	12	0	1	1
82	2	14	16	4	5	9	0	8	8	0	2	2
83	1	9	10	3	4	7	3	7	10	0	2	2
84	2	20	22	6	5	11	0	4	4	0	1	1
85	1	10	11	1	2	3	2	11	13	0	2	2
86	3	9	12	1	1	2	0	4	4	0	2	2
87	2	14	16	0	4	4	1	5	6	1	3	4
88	0	9	9	0	4	4	-	3	3	-	4	4
89	1	10	11	1	2	3	-	6	6	-	1	1
90	-	7	7	1	2	3	-	4	4	-	1	1
91	-	5	5	0	3	3	-	1	1	-	0	0
92	-	4	4	0	1	1	-	3	3	-	0	0
93	-	6	6	0	6	6	-	0	0	-	0	0
94	-	4	4	0	1	1	-	0	0	-	0	0
95	-	5	5	0	1	1	-	2	2	-	0	0
96	-	4	4	0	2	2	-	0	0	-	0	0
97	-	2	2	0	2	2	-	0	0	-	0	0
98	-	3	3	0	1	1	-	0	0	-	1	1
99	-	1	1	0	1	1	-	3	3	-	-	-
100	-	0	0	0	1	1	-	-	-	-	-	-
101	-	0	0	0	1	1	-	-	-	-	-	-
102	-	1	1	0	0	0	-	-	-	-	-	-
103	-	0	0	0	0	0	-	-	-	-	-	-
104	-	0	0	0	0	0	-	-	-	-	-	-
105	-	1	1	0	0	0	-	-	-	-	-	-
106	-	-	-	0	0	0	-	-	-	-	-	-
107	-	-	-	0	0	0	-	-	-	-	-	-
108	-	-	-	0	0	0	-	-	-	-	-	-
109	-	-	-	1	1	2	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Total	44	255	299	53	149	202	105	336	441	15	54	69

Appendix table 7 (cont'd)

Set no. Fork length (cm)	17			18			19			20		
	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												
61												
62												
63												
64												
65												
66				1		1						
67						0						
68						0						
69						0						
70						0						
71						0						
72						0						
73						0						
74						0						
75						0						
76						0						
77						0						

Appendix table 7 (cont'd)

Set no.	17			18			19			20		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
78	-	-	-	-	-	0	-	-	-	1	-	1
79	-	-	-	-	-	0	-	-	-	0	-	0
80	-	-	-	-	-	0	-	-	-	0	-	0
81	-	-	-	-	-	0	-	-	-	0	-	0
82	1	-	1	-	-	0	-	-	-	0	-	0
83	1	-	1	-	-	0	-	-	-	0	-	0
84	-	-	-	-	-	0	-	-	-	0	1	1
85	-	-	-	-	-	0	-	-	-	0	1	1
86	-	-	-	-	1	1	-	-	-	1	0	1
87	-	-	-	-	1	1	-	1	1	-	0	0
88	-	-	-	-	0	0	-	1	1	-	2	2
89	-	-	-	-	0	0	-	0	0	-	1	1
90	-	-	-	-	0	0	-	1	1	-	1	1
91	-	-	-	-	1	1	-	0	0	-	1	1
92	-	-	-	-	3	3	-	2	2	-	0	0
93	-	-	-	-	2	2	-	5	5	-	2	2
94	-	-	-	-	2	2	-	0	0	-	1	1
95	-	-	-	-	0	0	-	1	1	-	2	2
96	-	-	-	-	1	1	-	0	0	-	2	2
97	-	-	-	-	0	0	-	1	1	-	1	1
98	-	-	-	-	0	0	-	1	1	-	0	0
99	-	-	-	-	2	2	-	2	2	-	1	1
100	-	-	-	-	2	2	-	1	1	-	2	2
101	-	-	-	-	0	0	-	1	1	-	0	0
102	-	-	-	-	0	0	-	1	1	-	0	0
103	-	-	-	-	0	0	-	1	1	-	0	0
104	-	-	-	-	1	1	-	2	2	-	1	1
105	-	-	-	-	-	-	-	0	0	-	0	0
106	-	-	-	-	-	-	-	0	0	-	0	0
107	-	-	-	-	-	-	-	1	1	-	0	0
108	-	-	-	-	-	-	-	0	0	-	0	0
109	-	-	-	-	-	-	-	0	0	-	2	2
110	-	-	-	-	-	-	-	0	0	-	0	0
111	-	-	-	-	-	-	-	0	0	-	1	1
112	-	-	-	-	-	-	-	1	1	-	1	1
113	-	-	-	-	-	-	-	-	-	-	0	0
114	-	-	-	-	-	-	-	-	-	-	1	1
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	0	2	1	16	17	0	23	23	2	24	26

Appendix table 7 (cont'd)

Set no. Fork length (cm)	21			22			23			24		
	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57					1	1						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
65					0	0						
66					0	0						
67					0	0						
68					0	0						
69					0	0						
70					0	0						
71					1	1						
72					0	0		2	2			
73					0	0		1	1			
74					1	1		1	1			
75					0	0		0	0			
76					3	3		0	0			
77					0	0		1	1			

Appendix table 7 (cont'd)

Set no. Fork length (cm)	21			22			23			24		
	M	F	T	M	F	T	M	F	T	M	F	T
78	-	-	-	-	0	0	-	2	2	-	-	-
79	-	-	-	-	1	1	-	4	4	-	-	-
80	-	-	-	-	2	2	2	3	5	1	-	1
81	-	-	-	1	4	5	1	3	4	0	-	0
82	-	-	-	0	3	3	0	2	2	1	1	2
83	-	-	-	0	4	4	0	9	9	0	1	1
84	-	-	-	0	7	7	1	4	5	0	0	0
85	-	-	-	1	1	2	4	7	11	0	1	1
86	-	-	-	0	4	4	0	9	9	0	2	2
87	-	-	-	0	11	11	3	14	17	0	0	0
88	-	-	-	3	9	12	3	12	15	0	1	1
89	-	-	-	0	6	6	-	17	17	0	3	3
90	1	-	1	0	10	10	-	17	17	0	1	1
91	-	-	0	0	9	9	-	19	19	0	2	2
92	-	1	1	0	9	9	-	16	16	0	7	7
93	-	2	2	0	10	10	-	10	10	0	7	7
94	-	0	0	0	10	10	-	9	9	0	4	4
95	-	0	0	1	11	12	-	13	13	0	2	2
96	-	1	1	-	11	11	-	12	12	0	5	5
97	-	0	0	-	12	12	-	6	6	0	4	4
98	-	0	0	-	10	10	-	6	6	0	5	5
99	-	0	0	-	5	5	-	10	10	1	3	4
100	-	1	1	-	6	6	-	11	11	-	1	1
101	-	1	1	-	4	4	-	8	8	-	1	1
102	-	-	-	-	1	1	-	3	3	-	1	1
103	-	-	-	-	2	2	-	2	2	-	1	1
104	-	-	-	-	2	2	-	2	2	-	0	0
105	-	-	-	-	0	0	-	1	1	-	0	0
106	-	-	-	-	1	1	-	1	1	-	1	1
107	-	-	-	-	0	0	-	2	2	-	1	1
108	-	-	-	-	0	0	-	-	-	-	-	-
109	-	-	-	-	0	0	-	-	-	-	-	-
110	-	-	-	-	0	0	-	-	-	-	-	-
111	-	-	-	-	0	0	-	-	-	-	-	-
112	-	-	-	-	0	0	-	-	-	-	-	-
113	-	-	-	-	0	0	-	-	-	-	-	-
114	-	-	-	-	0	0	-	-	-	-	-	-
115	-	-	-	-	0	0	-	-	-	-	-	-
116	-	-	-	-	0	0	-	-	-	-	-	-
117	-	-	-	-	0	0	-	-	-	-	-	-
118	-	-	-	-	0	0	-	-	-	-	-	-
119	-	-	-	-	1	1	-	-	-	-	-	-
Total	1	6	7	6	172	178	14	239	253	3	55	58

Appendix table 7 (cont'd)

Set no. / Fork length (cm)	25			26			27			28		
	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												
61												
62												
63												
64												
65												
66												
67												
68					1	1						
69	1		1		0	0	1		1			
70	0		0		0	0			0			
71	0	1	1		0	0			0			
72	0	0	0		2	2			0			
73	0	0	0		1	1			0			
74	0	0	0		0	0			0			
75	0	1	1		1	1			0			
76	1	2	3		2	2			0			
77	1	4	5	1	0	1			0			

Appendix table 7 (cont'd)

Set no. / Fork length (cm)	25			26			27			28		
	M	F	T	M	F	T	M	F	T	M	F	T
78	0	6	6	1	1	2	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]
79	0	4	4	0	3	3	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]
80	0	6	6	1	2	3	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]
81	0	4	4	2	1	3	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]
82	3	5	8	0	4	4	[illegible]	[illegible]	0	[illegible]	1	1
83	1	4	5	1	7	8	[illegible]	[illegible]	0	[illegible]	0	0
84	1	9	10	1	9	10	[illegible]	[illegible]	0	[illegible]	3	3
85	1	10	11	1	12	13	[illegible]	[illegible]	0	[illegible]	0	0
86	2	5	7	0	12	12	[illegible]	[illegible]	0	[illegible]	0	0
87	1	8	9	0	15	15	[illegible]	[illegible]	0	[illegible]	0	0
88	0	9	9	2	21	23	[illegible]	[illegible]	0	[illegible]	1	1
89	0	23	23	[illegible]	9	9	[illegible]	[illegible]	0	[illegible]	0	0
90	1	12	13	[illegible]	13	13	[illegible]	[illegible]	0	[illegible]	0	0
91	[illegible]	18	18	[illegible]	21	21	[illegible]	1	1	[illegible]	0	0
92	[illegible]	15	15	[illegible]	14	14	[illegible]	2	2	[illegible]	0	0
93	[illegible]	16	16	[illegible]	7	7	[illegible]	0	0	[illegible]	0	0
94	[illegible]	10	10	[illegible]	13	13	[illegible]	4	4	[illegible]	0	0
95	[illegible]	10	10	[illegible]	11	11	[illegible]	1	1	[illegible]	1	1
96	[illegible]	13	13	[illegible]	14	14	[illegible]	0	0	[illegible]	[illegible]	[illegible]
97	[illegible]	5	5	[illegible]	12	12	[illegible]	1	1	[illegible]	[illegible]	[illegible]
98	[illegible]	13	13	[illegible]	6	6	[illegible]	2	2	[illegible]	[illegible]	[illegible]
99	[illegible]	8	8	[illegible]	5	5	[illegible]	0	0	[illegible]	[illegible]	[illegible]
100	[illegible]	9	9	[illegible]	3	3	[illegible]	0	0	[illegible]	[illegible]	[illegible]
101	[illegible]	4	4	[illegible]	2	2	[illegible]	0	0	[illegible]	[illegible]	[illegible]
102	[illegible]	1	1	[illegible]	4	4	[illegible]	0	0	[illegible]	[illegible]	[illegible]
103	[illegible]	2	2	[illegible]	3	3	[illegible]	2	2	[illegible]	[illegible]	[illegible]
104	[illegible]	1	1	[illegible]	2	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
105	[illegible]	0	0	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
106	[illegible]	1	1	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
107	[illegible]	2	2	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
108	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
109	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
110	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
111	[illegible]	[illegible]	[illegible]	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
112	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
113	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
114	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
115	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
116	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
117	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
118	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
119	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	13	241	254	10	236	246	1	13	14	0	6	6

Appendix table 7 (cont'd)

Set no. Fork length (cm)	29			30			31			32		
	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54											1	1
55											0	0
56											0	0
57							1		1		1	1
58							0	1	1		2	2
59							0	1	1		2	2
60							1	0	1		3	3
61							1	1	2	2	0	2
62							1	0	1	3	5	8
63							0	0	0	2	4	6
64		1	1		1	1	1	0	1	3	3	6
65		0	0		3	3	2	6	8	1	6	7
66		0	0		0	0	0	6	6	2	5	7
67		1	1		0	0	0	0	0	2	3	5
68		1	1	3	0	3	1	6	7	2	2	4
69		0	0	0	1	1	0	3	3	3	2	5
70	1	0	1	1	0	1	1	1	2	4	3	7
71	0	0	0	0	0	0	2	2	4	3	6	9
72	0	1	1	0	1	1	0	5	5	4	8	12
73	1	1	2	0	4	4	0	1	1	3	3	6
74	0	0	0	0	0	0	0	0	0	1	3	4
75	1	1	2	0	2	2	0	2	2	4	9	13
76	0	2	2	1	3	4	0	3	3	4	3	7
77	0	1	1	1	4	5	1	1	2	1	3	4

Appendix table 7 (cont'd)

Set no. Fork length (cm)	29			30			31			32		
	M	F	T	M	F	T	M	F	T	M	F	T
78	0	0	0	1	0	1	2	1	3	0	6	6
79	1	2	3	0	4	4	1	0	1	4	2	6
80	1	2	3	1	2	3	0	1	1	3	6	9
81	2	1	3	0	2	2	2	1	3	2	2	4
82	3	2	5	3	2	5	0	0	0	3	1	4
83	0	0	0	1	1	2	3	0	3	1	2	3
84	1	0	1	0	0	0	0	0	0	1	3	4
85	2	0	2	3	2	5	1	0	1	2	3	5
86	1	2	3	0	7	7	0	0	0	0	2	2
87	0	1	1	0	2	2	0	0	0	0	2	2
88	0	0	0	2	2	4	1	1	2	0	1	1
89	0	0	0	0	2	2	▬	▬	▬	1	0	1
90	1	3	4	0	2	2	▬	▬	▬	▬	1	1
91	▬	2	2	1	2	3	▬	▬	▬	▬	0	0
92	▬	1	1	0	1	1	▬	▬	▬	▬	0	0
93	▬	1	1	1	0	1	▬	▬	▬	▬	1	1
94	▬	0	0	▬	1	1	▬	▬	▬	▬	▬	▬
95	▬	0	0	▬	0	0	▬	▬	▬	▬	▬	▬
96	▬	3	3	▬	2	2	▬	▬	▬	▬	▬	▬
97	▬	0	0	▬	0	0	▬	▬	▬	▬	▬	▬
98	▬	0	0	▬	0	0	▬	▬	▬	▬	▬	▬
99	▬	0	0	▬	1	1	▬	▬	▬	▬	▬	▬
100	▬	0	0	▬	0	0	▬	▬	▬	▬	▬	▬
101	▬	1	1	▬	0	0	▬	▬	▬	▬	▬	▬
102	▬	▬	▬	▬	0	0	▬	▬	▬	▬	▬	▬
103	▬	▬	▬	▬	0	0	▬	▬	▬	▬	▬	▬
104	▬	▬	▬	▬	1	1	▬	▬	▬	▬	▬	▬
105	▬	▬	▬	▬	0	0	▬	▬	▬	▬	▬	▬
106	▬	▬	▬	▬	1	1	▬	▬	▬	▬	▬	▬
107	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
108	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
109	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
110	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
111	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
112	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
113	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
114	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
115	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
116	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
117	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
118	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
119	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
Total	15	30	45	19	56	75	22	43	65	61	109	170

Appendix table 7 (cont'd)

Set no. Fork length (cm)	33			34			35			36		
	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54							1		1			
55							0		0			
56							0		0			
57							0		0			
58							0		0			
59							0		0			
60							0		0			
61							1	1	2			
62		1	1		1	1	0	0	0			
63		1	1		0	0	0	2	2			
64	1	0	1		0	0	0	0	0			
65	0	0	0		0	0	0	0	0			
66	0	0	0	2	0	2	0	1	1		1	1
67	0	1	1	1	0	1	0	0	0		1	1
68	1	1	2	0	0	0	1	2	3	1	0	1
69	1	2	3	0	1	1	1	1	2	0	1	1
70	1	1	2	0	4	4	0	0	0	0	2	2
71	0	1	1	0	4	4	0	3	3	0	2	2
72	0	2	2	0	6	6	0	1	1	1	1	2
73	1	1	2	1	1	2	1	3	4	1	0	1
74	2	2	4	2	4	6	0	2	2	0	2	2
75	0	0	0	0	2	2	0	3	3	0	2	2
76	2	0	2	0	4	4	1	2	3	0	2	2
77	2	2	4	2	7	9	0	3	3	0	2	2

Appendix table 7 (cont'd)

Set no.	33			34			35			36		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
78	2	1	3	1	6	7	0	4	4	1	1	2
79	3	0	3	2	6	8	0	5	5	1	1	2
80	0	0	0	1	3	4	0	6	6	[illegible]	1	1
81	0	0	0	1	4	5	0	3	3	[illegible]	0	0
82	0	1	1	1	9	10	0	4	4	[illegible]	2	2
83	0	1	1	1	4	5	1	2	3	[illegible]	3	3
84	3	2	5	0	6	6	0	2	2	[illegible]	1	1
85	1	1	2	0	7	7	1	6	7	[illegible]	5	5
86	0	0	0	0	6	6	0	4	4	[illegible]	1	1
87	0	1	1	0	2	2	0	2	2	[illegible]	0	0
88	1	1	2	0	4	4	1	2	3	[illegible]	0	0
89	0	1	1	1	5	6	[illegible]	4	4	[illegible]	1	1
90	1	1	2	2	4	6	[illegible]	4	4	[illegible]	1	1
91	[illegible]	0	0	[illegible]	3	3	[illegible]	3	3	[illegible]	2	2
92	[illegible]	0	0	[illegible]	4	4	[illegible]	1	1	[illegible]	1	1
93	[illegible]	1	1	[illegible]	5	5	[illegible]	1	1	[illegible]	1	1
94	[illegible]	0	0	[illegible]	1	1	[illegible]	2	2	[illegible]	0	0
95	[illegible]	0	0	[illegible]	4	4	[illegible]	1	1	[illegible]	0	0
96	[illegible]	1	1	[illegible]	0	0	[illegible]	2	2	[illegible]	1	1
97	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	1	1	[illegible]	1	1
98	[illegible]	[illegible]	[illegible]	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
99	[illegible]	[illegible]	[illegible]	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
101	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
102	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
103	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
104	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
105	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
106	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
107	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
108	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
109	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
110	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
111	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
112	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
113	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
114	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
115	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
116	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
117	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
118	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
119	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	22	27	49	18	119	137	9	83	92	5	39	44

Appendix table 7 (cont'd)

Set no.	39			41			42			43		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												
61							1		1			
62							0		0			
63							0		0			
64							0		0			
65							0		0			
66							0		0			
67							0		0			
68							0		0			
69							0		0			
70							0		0			
71							1		1			
72							0		0			
73							0		0	1		1
74	1		1				0	1	1	0	1	1
75			0				0	0	0	0	0	0
76		1	1				1	0	1	0	0	0
77		0	0					0	0	0	0	0

Appendix table 7 (cont'd)

Set no. / Fork length (cm)	39			41			42			43		
	M	F	T	M	F	T	M	F	T	M	F	T
78		0	0					0	0	0	0	0
79		0	0					0	0	0	0	0
80		0	0					1	1	0	2	2
81		0	0					0	0	0	1	1
82		0	0					0	0	0	0	0
83		0	0					0	0	1	0	1
84		0	0					0	0		1	1
85		0	0					0	0		1	1
86		0	0					0	0		1	1
87		0	0					2	2		1	1
88		1	1					0	0		0	0
89		0	0					2	2		3	3
90		0	0					1	1		1	1
91		0	0					0	0		0	0
92		0	0					0	0		1	1
93		0	0					0	0		1	1
94		0	0		1	1		0	0		0	0
95		0	0					2	2		2	2
96		0	0					1	1		1	1
97		1	1					1	1		0	0
98								2	2		0	0
99								0	0		1	1
100								0	0		2	2
101								0	0			
102								2	2			
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												
Total	1	3	4	0	1	1	3	15	18	2	20	22

Appendix table 7 (cont'd)

Set no.	44			45			48			49		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43					1	1						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60				1	0	1						
61				0	0	0						
62				0	0	0						
63				0	0	0						
64				0	0	0						
65				0	0	0						
66		2	2	0	0	0						
67		0	0	0	1	1						
68		0	0	0	0	0		1	1			
69		0	0	0	1	1		1	1			
70	1	0	1	1	2	3	1	1	2			
71		0	0	1	1	2	1	1	2			
72		0	0	0	0	0	0	0	0			
73		1	1	0	1	1	0	2	2			
74		0	0	0	0	0	0	2	2			
75		0	0	0	0	0	1	1	2		1	1
76		0	0	0	1	1	2	3	5		0	0
77		0	0	0	2	2	1	1	2		0	0

Appendix table 7 (cont'd)

Set no.	44			45			48			49		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
78	-	0	0	1	1	2	1	4	5	-	0	0
79	-	1	1	0	2	2	0	4	4	-	0	0
80	-	0	0	0	0	0	3	4	7	-	0	0
81	-	0	0	1	1	2	1	1	1	-	2	2
82	-	2	2	0	2	2	2	5	7	-	0	0
83	-	1	1	0	0	0	2	4	6	-	0	0
84	-	1	1	0	2	2	0	0	0	-	0	0
85	-	0	0	0	0	0	3	3	6	-	1	1
86	-	1	1	0	1	1	0	2	2	-	1	1
87	-	0	0	0	3	3	0	2	2	-	0	0
88	-	0	0	0	1	1	0	3	3	-	0	0
89	-	0	0	1	0	1	1	1	2	-	0	0
90	-	0	0	-	3	3	0	1	1	-	0	0
91	-	0	0	-	1	1	0	0	0	-	0	0
92	-	0	0	-	1	1	0	1	1	-	0	0
93	-	0	0	-	2	2	1	2	3	-	1	1
94	-	1	1	-	0	0	0	1	1	-	-	0
95	-	-	-	-	1	1	0	2	2	1	-	1
96	-	-	-	-	-	-	0	-	0	-	-	-
97	-	-	-	-	-	-	0	-	0	-	-	-
98	-	-	-	-	-	-	0	-	0	-	-	-
99	-	-	-	-	-	-	0	-	0	-	-	-
100	-	-	-	-	-	-	0	-	0	-	-	-
101	-	-	-	-	-	-	0	-	0	-	-	-
102	-	-	-	-	-	-	0	-	0	-	-	-
103	-	-	-	-	-	-	1	-	1	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	10	11	6	31	37	21	53	74	1	6	7

Appendix table 7 (cont'd)

Set no. Fork length (cm)	50			51			52			53		
	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54		1	1									
55	1	0	1									
56	1	0	1									
57	0	0	0									
58	0	1	1					1	1			
59	0	0	0					0	0			
60	0	1	1		2	2	1	1	2			
61	0	0	0		0	0	1	1	2			
62	1	0	1	1	0	1	0	1	1			
63	0	1	1	0	1	1	0	1	1			
64	0	1	1	0	0	0	1	0	1			
65	0	2	2	0	1	1	1	2	3			
66	1	5	6	1	1	2	0	0	0			
67	0	2	2	0	1	1	1	3	4	1		1
68	1	3	4	0	3	3	1	2	3			0
69	1	3	4	0	1	1	1	2	3			0
70	2	5	7	0	6	6	0	4	4		1	1
71	0	2	2	0	3	3	0	0	0		0	0
72	0	3	3	0	1	1	1	2	3		1	1
73	1	4	5	1	3	4		3	3		0	0
74	0	2	2	0	0	0		0	0		0	0
75	1	1	2	1	5	6		1	1		1	1
76	3	8	11	0	2	2		3	3		2	2
77	2	2	4	0	4	4		2	2		0	0

Appendix table 7 (cont'd)

Set no.	50			51			52			53		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
78	1	2	3	0	2	2	-	2	2	-	0	0
79	4	2	6	0	3	3	-	0	0	-	0	0
80	1	1	2	2	4	6	-	1	1	-	0	0
81	2	2	4	0	1	1	-	0	0	-	0	0
82	0	0	0	0	1	1	-	0	0	-	1	1
83	0	3	3	1	4	5	-	0	0	-	0	0
84	0	2	2	0	1	1	-	0	0	-	0	0
85	1	2	3	1	2	3	-	0	0	-	0	0
86	-	1	1	0	1	1	-	0	0	-	0	0
87	-	0	0	0	0	0	-	0	0	-	0	0
88	-	0	0	1	1	2	-	0	0	-	0	0
89	-	1	1	-	0	0	-	0	0	-	1	1
90	-	0	0	-	0	0	-	1	1	-	-	-
91	-	0	0	-	0	0	-	-	-	-	-	-
92	-	0	0	-	0	0	-	-	-	-	-	-
93	-	1	1	-	0	0	-	-	-	-	-	-
94	-	-	-	-	0	0	-	-	-	-	-	-
95	-	-	-	-	0	0	-	-	-	-	-	-
96	-	-	-	-	0	0	-	-	-	-	-	-
97	-	-	-	-	0	0	-	-	-	-	-	-
98	-	-	-	-	0	0	-	-	-	-	-	-
99	-	-	-	-	1	1	-	-	-	-	-	-
100	-	-	-	-	0	0	-	-	-	-	-	-
101	-	-	-	-	0	0	-	-	-	-	-	-
102	-	-	-	-	0	0	-	-	-	-	-	-
103	-	-	-	-	0	0	-	-	-	-	-	-
104	-	-	-	-	0	0	-	-	-	-	-	-
105	-	-	-	-	0	0	-	-	-	-	-	-
106	-	-	-	-	0	0	-	-	-	-	-	-
107	-	-	-	-	0	0	-	-	-	-	-	-
108	-	-	-	-	0	0	-	-	-	-	-	-
109	-	-	-	-	0	0	-	-	-	-	-	-
110	-	-	-	-	0	0	-	-	-	-	-	-
111	-	-	-	-	0	0	-	-	-	-	-	-
112	-	-	-	-	0	0	-	-	-	-	-	-
113	-	-	-	-	1	1	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Total	24	64	88	9	56	65	8	33	41	1	7	8

Appendix table 7 (cont'd)

Set no.	54			55			56			57		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59							1		1			
60	1		1				0		0			
61	0		0				0		0			
62	0		0				0	1	1			
63	0		0				0	0	0			
64	0		0				0	0	0	1		1
65	0		0				0	0	0	0		0
66	0		0				0	0	0	1		1
67	0		0				0	3	3	0	4	4
68	0		0				0	0	0	0	1	1
69	0		0				0	0	0	1	2	3
70	0		0				1	2	3	0	2	2
71	0	1	1		2	2	1	2	3	1	4	5
72	0	0	0		0	0	0	1	1	0	3	3
73	0	0	0		0	0	1	0	1	0	2	2
74	0	0	0		0	0	0	1	1	2	3	5
75	0	0	0		0	0	0	2	2	2	5	7
76	0	1	1		1	1	0	1	1	0	5	5
77	0	0	0		0	0	0	3	3	0	6	6

Appendix table 7 (cont'd)

Set no.	54			55			56			57		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
78	0	2	2		1	1	0	2	2	0	4	4
79	0	0	0		1	1	1	3	4	1	4	5
80	0	0	0		0	0		2	2	0	4	4
81	0	0	0		0	0		0	0	0	3	3
82	0	3	3		0	0		4	4	1	4	5
83	1	0	1		1	1		0	0	1	4	5
84		1	1		0	0		3	3	0	8	8
85		3	3		0	0		5	5	0	3	3
86		0	0		1	1		1	1	1	3	4
87		3	3		0	0		3	3	0	2	2
88		0	0		0	0		0	0	0	7	7
89		0	0		0	0		2	2	0	3	3
90		0	0		0	0		0	0	0	3	3
91		1	1		0	0		0	0	0	2	2
92		1	1	1	1	2		1	1	0	3	3
93		0	0		1	1		1	1	0	2	2
94		0	0		0	0		2	2	0	2	2
95		0	0		0	0		1	1	0	1	1
96		0	0		0	0		0	0	0	1	1
97		0	0		0	0		1	1	0	0	0
98		0	0		0	0		0	0	1	0	1
99		1	1		0	0		0	0		0	0
100		0	0		0	0		0	0		0	0
101		0	0		0	0		2	2		1	1
102		0	0		0	0		0	0			
103		0	0		0	0		0	0			
104		0	0		0	0		1	1			
105		0	0		0	0		0	0			
106		0	0		1	1		0	0			
107		0	0					1	1			
108		0	0					0	0			
109		0	0					0	0			
110		0	0					1	1			
111		0	0									
112		0	0									
113		0	0									
114		1	1									
115												
116												
117												
118												
119												
Total	2	18	20	1	10	11	5	52	57	13	101	114

Appendix table 7 (cont'd)

Set no. Fork length (cm)	58			59			61			62		
	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54		1	1									
55		0	0									
56		1	1									
57		1	1									
58		0	0									
59		1	1									
60		0	0									
61	1	1	2		1	1				1		1
62	0	2	2	1	0	1				0		0
63	0	0	0	0	0	0				0		0
64	1	2	3	0	1	1				0		0
65	0	1	1	1	0	1				0		0
66	3	1	4	1	0	1				0	1	1
67	2	1	3	0	2	2		1	1	0	0	0
68	3	0	3	0	0	0		0	0	0	0	0
69	0	1	1	2	1	3		1	1	0	1	1
70	2	4	6	1	3	4		0	0	0	3	3
71	1	2	3	0	2	2		0	0	0	2	2
72	1	3	4	0	0	0		1	1	0	1	1
73	0	2	2	0	0	0		0	0	0	3	3
74	0	2	2	0	3	3	1	0	1	1	4	5
75	3	3	6	3	1	4	0	0	0	0	6	6
76	1	0	1	0	0	0	0	0	0	1	4	5
77	4	1	5	0	0	0	0	1	1	2	4	6

Appendix table 7 (cont'd)

Set no. Fork length (cm)	58			59			61			62		
	M	F	T	M	F	T	M	F	T	M	F	T
78	1	4	5	1	0	1	0	1	1	0	6	6
79	2	0	2	1	1	2	0	0	0	1	7	8
80	3	5	8	0	1	1	0	2	2	2	9	11
81	0	0	0	0	0	0	1	0	1	1	7	8
82	0	4	4	0	0	0	0	1	1	1	5	6
83	0	1	1	0	0	0	0	1	1	0	4	4
84	0	2	2	0	0	0	2	0	2	2	7	9
85	2	1	3	1	0	1	1	0	1	1	10	11
86	[illegible]	0	0	0	1	1	0	1	1	1	5	6
87	[illegible]	0	0	0	0	0	2	3	5	0	5	5
88	[illegible]	2	2	0	0	0	1	0	1	2	7	9
89	[illegible]	1	1	0	0	0	0	1	1	1	7	8
90	[illegible]	0	0	0	1	1	1	2	3	0	12	12
91	[illegible]	0	0	1	0	1	1	2	3	2	9	11
92	[illegible]	1	1	[illegible]	0	0	[illegible]	0	0	[illegible]	8	8
93	[illegible]	0	0	[illegible]	0	0	[illegible]	1	1	[illegible]	7	7
94	[illegible]	0	0	[illegible]	0	0	[illegible]	6	6	[illegible]	13	13
95	[illegible]	0	0	[illegible]	0	0	[illegible]	7	7	[illegible]	11	11
96	[illegible]	0	0	[illegible]	0	0	[illegible]	0	0	[illegible]	19	19
97	[illegible]	1	1	[illegible]	0	0	[illegible]	2	2	[illegible]	7	7
98	[illegible]	0	0	[illegible]	1	1	[illegible]	3	3	[illegible]	9	9
99	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	3	3	[illegible]	8	8
100	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	3	3	[illegible]	8	8
101	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	1	1	[illegible]	6	6
102	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	3	3	[illegible]	2	2
103	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	2	2	[illegible]	3	3
104	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	2	2	[illegible]	0	0
105	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	1	1	[illegible]	1	1
106	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	1	1	[illegible]	1	1
107	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	4
108	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
109	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
110	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
111	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
112	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1
113	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1
114	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1
115	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
116	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
117	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
118	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
119	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	30	53	83	13	19	32	10	53	63	19	239	258

Appendix table 7 (cont'd)

Set no. Fork length (cm)	63			65			67			68		
	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53								1	1			
54								0	0			
55								0	0			
56		1	1					0	0			
57		0	0					1	1			
58		0	0					0	0			
59		0	0				1	0	1		1	1
60		0	0				1	0	1		0	0
61		0	0	1	1	2	0	2	2		0	0
62		0	0	0	0	0	2	3	5	1	0	1
63		0	0	0	1	1	1	1	2	0	0	0
64		0	0	0	0	0	2	1	3	0	0	0
65	1	0	1	0	1	1	1	1	2	1	0	1
66	0	1	1	0	0	0	3	3	6	0	0	0
67	1	1	2	0	1	1	0	2	2	1	0	1
68	0	3	3	0	0	0	2	5	7	0	0	0
69	0	1	1	0	0	0	1	4	5	0	0	0
70	0	2	2	1	1	2	5	4	9	1	0	1
71	0	1	1	1	2	3	2	8	10	1	1	2
72	0	0	0	0	2	2	4	10	14	0	3	3
73	1	4	5	0	1	1	3	7	10	1	0	1
74	2	0	2	0	1	1	4	9	13	0	1	1
75	1	2	3	0	1	1	1	7	8	0	0	0
76	2	2	4	0	2	2	2	7	9	1	0	1
77	2	7	9	0	5	5	3	8	11	2	1	3

Appendix table 7 (cont'd)

Set no.	63			65			67			68		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
78	4	6	10	0	3	3	0	4	4	1	0	1
79	2	4	6	0	4	4	2	7	9	0	0	0
80	2	8	10	1	2	3	2	11	13	0	0	0
81	3	4	7	0	2	2	0	8	8	1	0	1
82	4	8	12	0	3	3	1	8	9	1	0	1
83	3	13	16	0	3	3	3	4	7	0	0	0
84	3	10	13	1	4	5	0	7	7	0	0	0
85	2	13	15	2	4	6	0	3	3	0	0	0
86	8	16	24	0	4	4	0	6	6	0	0	0
87	5	14	19	0	3	3	2	4	6	0	0	0
88	3	8	11	0	0	0	[illegible]	5	5	0	0	0
89	2	9	11	0	4	4	[illegible]	5	5	1	0	1
90	5	6	11	1	4	5	[illegible]	2	2	[illegible]	0	0
91	0	15	15	0	3	3	[illegible]	1	1	[illegible]	0	0
92	1	6	7	1	1	2	[illegible]	2	2	[illegible]	0	0
93	1	5	6	[illegible]	2	2	[illegible]	1	1	[illegible]	0	0
94	[illegible]	9	9	[illegible]	2	2	[illegible]	0	0	[illegible]	0	0
95	[illegible]	3	3	[illegible]	1	1	[illegible]	1	1	[illegible]	0	0
96	[illegible]	5	5	[illegible]	2	2	[illegible]	0	0	[illegible]	0	0
97	[illegible]	3	3	[illegible]	2	2	[illegible]	1	1	[illegible]	0	0
98	[illegible]	1	1	[illegible]	0	0	[illegible]	0	0	[illegible]	0	0
99	[illegible]	2	2	[illegible]	1	1	[illegible]	1	1	[illegible]	0	0
100	[illegible]	0	0	[illegible]	0	0	[illegible]	1	1	[illegible]	0	0
101	[illegible]	1	1	[illegible]	0	0	[illegible]	0	0	[illegible]	0	0
102	[illegible]	1	1	[illegible]	0	0	[illegible]	0	0	[illegible]	0	0
103	[illegible]	2	2	[illegible]	0	0	[illegible]	0	0	[illegible]	0	0
104	[illegible]	0	0	[illegible]	0	0	[illegible]	0	0	[illegible]	0	0
105	[illegible]	0	0	[illegible]	0	0	[illegible]	0	0	[illegible]	0	0
106	[illegible]	1	1	[illegible]	0	0	[illegible]	1	1	[illegible]	0	0
107	[illegible]	0	0	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	1	1
108	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
109	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
110	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
111	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
112	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
113	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
114	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
115	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
116	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
117	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
118	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
119	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	58	199	257	9	74	83	48	167	215	13	8	21

Appendix table 7 (cont'd)

Set no. Fork length (cm)	69			70			71			72		
	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												
61											1	1
62											0	0
63											0	0
64											1	1
65		1	1							1	0	1
66		0	0							0	0	0
67		0	0							0	0	0
68		0	0							0	1	1
69		2	2							1	1	2
70	2	1	3							0	2	2
71	1	3	4		1	1				2	3	5
72	0	5	5		0	0				1	2	3
73	0	7	7		0	0		1	1	0	3	3
74	1	5	6		0	0		0	0	0	3	3
75	1	5	6		1	1		1	1	0	3	3
76	2	15	17		0	0		1	1	2	4	6
77	0	10	10		0	0		0	0	0	5	5

Appendix table 7 (cont'd)

Set no. Fork length (cm)	69			70			71			72		
	M	F	T	M	F	T	M	F	T	M	F	T
78	2	10	12	.	0	0	.	0	0	1	5	6
79	0	14	14	.	0	0	.	0	0	0	4	4
80	5	18	23	.	0	0	1	0	1	1	3	4
81	5	37	42	.	1	1	1	0	1	1	9	10
82	2	24	26	.	0	0	0	4	4	1	2	3
83	3	31	34	2	0	2	0	2	2	1	5	6
84	1	26	27	.	0	0	2	1	3	0	4	4
85	2	37	39	.	0	0	1	1	2	0	5	5
86	1	58	59	.	1	1	1	1	2	1	6	7
87	4	49	53	.	0	0	.	3	3	1	5	6
88	6	58	64	.	0	0	.	2	2	0	3	3
89	2	43	45	.	0	0	.	0	0	0	4	4
90	0	59	59	.	1	1	.	1	1	1	2	3
91	0	49	49	.	0	0	.	1	1	.	2	2
92	2	55	57	.	0	0	.	1	1	.	3	3
93	1	56	57	.	1	1	.	2	2	.	1	1
94	.	47	47	.	0	0	.	0	0	.	0	0
95	.	30	30	.	0	0	.	1	1	.	3	3
96	.	50	50	.	0	0	.	0	0	.	3	3
97	.	36	36	.	1	1	.	0	0	.	0	0
98	.	29	29	.	.	.	.	0	0	.	2	2
99	.	23	23	.	.	.	.	0	0	.	.	.
100	.	8	8	.	.	.	.	0	0	.	.	.
101	.	8	8	.	.	.	.	0	0	.	.	.
102	.	8	8	.	.	.	.	0	0	.	.	.
103	.	12	12	.	.	.	.	1	1	.	.	.
104	.	5	5	.	.	.	.	.	.	.	.	.
105	.	3	3	.	.	.	.	.	.	.	.	.
106	.	6	6	.	.	.	.	.	.	.	.	.
107	.	2	2	.	.	.	.	.	.	.	.	.
108	.	4	4	.	.	.	.	.	.	.	.	.
109	.	3	3	.	.	.	.	.	.	.	.	.
110	.	2	2	.	.	.	.	.	.	.	.	.
111	.	1	1	.	.	.	.	.	.	.	.	.
112	.	0	0	.	.	.	.	.	.	.	.	.
113	.	0	0	.	.	.	.	.	.	.	.	.
114	.	0	0	.	.	.	.	.	.	.	.	.
115	.	0	0	.	.	.	.	.	.	.	.	.
116	.	0	0	.	.	.	.	.	.	.	.	.
117	.	2	2	.	.	.	.	.	.	.	.	.
118	.	.	.	.	.	.	.	.	.	.	.	.
119	.	.	.	.	.	.	.	.	.	.	.	.
Total	43	957	1000	2	7	9	6	24	30	15	100	115

Appendix table 7 (cont'd)

Set no. / Fork length (cm)	73			74			75			77		
	M	F	T	M	F	T	M	F	T	M	F	T
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50		1	1									
51		0	0									
52		0	0									
53		0	0								1	1
54		0	0								0	0
55		0	0								0	0
56		0	0								0	0
57		0	0								0	0
58		0	0								0	0
59		0	0								0	0
60		0	0					1	1		0	0
61	1	0	1					0	0		0	0
62	0	0	0					0	0		0	0
63	1	0	1					0	0		0	0
64	1	1	2					0	0		0	0
65	0	0	0		1	1		0	0		0	0
66	1	0	1		0	0	1	0	1		0	0
67	0	1	1		0	0	0	1	1		0	0
68	0	3	3		0	0	0	1	1	1	1	2
69	0	2	2	2	1	3	0	0	0		0	0
70	1	0	1	0	2	2	0	0	0		0	0
71	0	3	3	0	1	1	0	2	2		0	0
72	1	3	4	2	0	2	0	0	0		0	0
73	1	3	4	2	2	4	0	0	0		0	0
74	2	2	4	1	0	1	0	0	0		0	0
75	0	4	4	0	1	1	0	0	0		0	0
76	0	1	1	1	0	1	0	0	0		1	1
77	4	3	7	1	4	5	0	0	0		0	0

Appendix table 7 (cont'd)

Set no. / Fork length (cm)	73			74			75			77		
	M	F	T	M	F	T	M	F	T	M	F	T
78	0	4	4	2	1	3	0	0	0	[illegible]	0	0
79	1	4	5	0	0	0	0	0	0	[illegible]	0	0
80	4	6	10	0	3	3	1	0	1	[illegible]	0	0
81	0	5	5	1	2	3	[illegible]	0	0	[illegible]	1	1
82	1	2	3	0	2	2	[illegible]	0	0	[illegible]	0	0
83	1	7	8	0	5	5	[illegible]	1	1	[illegible]	0	0
84	2	5	7	1	3	4	[illegible]	0	0	[illegible]	0	0
85	3	3	6	0	1	1	[illegible]	1	1	[illegible]	1	1
86	1	6	7	1	2	3	[illegible]	[illegible]	[illegible]	[illegible]	0	0
87	1	1	2	0	1	1	[illegible]	[illegible]	[illegible]	[illegible]	1	1
88	1	6	7	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
89	[illegible]	3	3	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	1	1
90	[illegible]	4	4	1	2	3	[illegible]	[illegible]	[illegible]	[illegible]	0	0
91	[illegible]	3	3	[illegible]	2	2	[illegible]	[illegible]	[illegible]	[illegible]	0	0
92	[illegible]	0	0	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	0	0
93	[illegible]	2	2	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	0	0
94	[illegible]	0	0	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	1	1
95	[illegible]	0	0	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	0	0
96	[illegible]	2	2	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
97	[illegible]	0	0	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
98	[illegible]	0	0	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
99	[illegible]	0	0	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
100	[illegible]	1	1	[illegible]	2	2	[illegible]	[illegible]	[illegible]	[illegible]	0	0
101	[illegible]	1	1	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	0	0
102	[illegible]	0	0	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	0	0
103	[illegible]	0	0	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
104	[illegible]	0	0	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
105	[illegible]	0	0	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
106	[illegible]	0	0	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	1	1
107	[illegible]	0	0	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
108	[illegible]	1	1	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	1	1
109	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
110	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0
111	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	1	1
112	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
113	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
114	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
115	[illegible]	[illegible]	[illegible]	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
116	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
117	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
118	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
119	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	28	93	121	15	45	60	2	7	9	1	11	12

Appendix table 7 (cont'd)

Set no. Fork length (cm)	81			Total		
	M	F	T	M	F	T
35				1		1
36				0		0
37				0		0
38				0		0
39				0		0
40				0		0
41				0		0
42				0		0
43				0	1	1
44				0	0	0
45				0	0	0
46				0	0	0
47				0	0	0
48				0	0	0
49				0	0	0
50	1		1	2	1	2
51	0		0	0	1	1
52	0		0	1	1	2
53	0		0	1	4	5
54	0		0	2	6	8
55	0		0	2	4	6
56	1		1	5	4	9
57				4	14	18
58				7	12	19
59				10	13	23
60				22	30	52
61				32	35	67
62				31	47	78
63				25	44	69
64				34	69	103
65				39	89	128
66				58	97	155
67				52	141	193
68				69	132	201
69				55	139	194
70				77	168	245
71				71	183	254
72				64	193	257
73				67	182	249
74				76	185	261
75				79	192	271
76				86	206	292
77				82	222	304

Appendix table 7 (cont'd)

Set no. Fork length (cm)	81			Total		
	M	F	T	M	F	T
79				81	202	283
80				88	231	319
81				72	221	293
82				77	210	287
83				82	224	306
84				68	235	303
85				77	235	312
86				61	244	305
87				56	243	299
88				45	234	279
89				20	225	245
90				29	224	253
91				13	224	237
92				7	205	212
93				7	198	205
94				2	180	182
95				4	167	171
96				0	188	188
97				0	122	122
98				1	117	118
99				1	101	102
100				0	76	76
101				0	63	63
102				0	46	46
103				1	40	41
104				0	33	33
105				0	13	13
106				0	21	21
107				0	22	22
108				0	10	10
109				1	7	8
110					4	4
111					7	7
112					4	4
113					3	3
114					3	3
115					2	2
116					1	1
117					2	2
118					0	0
119					1	1
Total	2	0	2	1922	7215	9137

Appendix table 8. Length frequency of walleye pollock by set, ARCTIC HARVESTER, August, 1977.

Set no.	4			5			8			12		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	1	-	-	1	-	-	3	-	-	-
8	-	-	-	-	-	-	-	-	4	-	-	1
9	-	-	-	-	-	-	-	-	1	-	-	2
10	-	-	-	-	-	-	-	-	1	-	-	0
11	-	-	-	-	-	-	-	-	1	-	-	1
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-

Appendix table 8 (cont'd)

Set no.	4			5			8			12		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												
61												
62												
63												
64												
65												
66												
67												
68												
69												
Total	0	0	1	0	0	1	0	0	10	0	0	4

Appendix table 8 (cont'd)

Set no.	13			17			18			34		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
6			17									5
7			9						3			17
8						2			0			4
9						0			0			1
10						0			0			
11						0			1			
12						1						
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												

Appendix table 8 (cont'd)

Set no.	13			17			18			34		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	0	26	0	0	3	0	0	4	0	0	27

Appendix table 8 (cont'd)

Set no.	41			55			57			63		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
6			2						2			
7			4			2			1			
8			1			0						
9						1						
10						1						
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48										1		1

Appendix table 8 (cont'd)

Set no.	41			55			57			63		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	0
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	0
51	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	1
52	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	0
53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1	2
54	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	0	1
55	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
56	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1
57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
58	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
59	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1
61	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
62	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
63	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
64	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
66	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
68	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
69	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	0	0	7	0	0	4	0	0	3	4	3	7

Appendix table 8 (cont'd)

Set no. / Fork length (cm)	65			67			68			69		
	M	F	T	M	F	T	M	F	T	M	F	T
6			9									
7			16									
8			3									
9			1									
10												
11									1			
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22										2		2
23										0		0
24										0		0
25										0	1	1
26										0	0	0
27										0	0	0
28										0	0	0
29										0	0	0
30										0	0	0
31										0	0	0
32										0	0	0
33										0	0	0
34										7	2	9
35										6	1	7
36										3	4	7
37										7	9	16
38										10	5	15
39										3	4	7
40										1	3	4
41										0	1	1
42										0	0	0
43										1	0	1
44										0	0	0
45										2	0	2
46										0	1	1
47										0	2	2
48										0	1	1

Appendix table 8 (cont'd)

Set no.	65			67			68			69		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
49										2	1	3
50										2	7	9
51					1	1				2	4	6
52					0	0				0	4	4
53					0	0				1	1	2
54					1	1				1	6	7
55											5	5
56											7	7
57											2	2
58											2	2
59												
60												
61												
62												
63												
64												
65												
66												
67												
68												
69												
Total	0	0	29	0	2	2	0	0	1	50	73	123

Appendix table 8 (cont'd)

Set no. / Fork length (cm)	70			71			74			75		
	M	F	T	M	F	T	M	F	T	M	F	T
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38		2	2				1		1			
39		2	2				0		0			
40	1	0	1				0		0			
41	1	1	2				0		0			
42	0	0	0				0	1	1			
43	0	0	0				0	0	0			
44	0	0	0				0	0	0			
45	0	0	0				2	0	2		1	
46	0	0	0				2	1	3		0	
47	1	0	1	1		1	7	3	10		0	
48	3	2	5	2	1	3	4	0	4		0	

Appendix table 8 (cont'd)

Set no.	70			71			74			75		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
49	2	3	5	1	1	2	7	0	7	2	1	3
50	3	4	7	0	0	0	8	3	11	1	3	4
51	3	5	8	2	2	4	4	2	6	0	3	3
52	3	7	10	4	0	4	4	4	8	0	1	1
53	4	7	11	4	1	5	3	5	8	1	3	4
54	4	7	11	4	4	8	1	2	3	[illegible]	0	0
55	2	5	7	5	2	7	3	0	3	[illegible]	1	1
56	[illegible]	4	4	0	4	4	0	0	0	[illegible]	1	1
57	[illegible]	6	6	1	3	4	2	1	3	[illegible]	0	0
58	[illegible]	2	2	[illegible]	0	0	[illegible]	2	2	[illegible]	1	1
59	[illegible]	3	3	[illegible]	2	2	[illegible]	0	0	[illegible]	[illegible]	[illegible]
60	[illegible]	1	1	[illegible]	3	3	[illegible]	1	1	[illegible]	[illegible]	[illegible]
61	[illegible]	1	1	[illegible]	0	0	[illegible]	0	0	[illegible]	[illegible]	[illegible]
62	[illegible]	[illegible]	[illegible]	[illegible]	1	1	[illegible]	1	1	[illegible]	[illegible]	[illegible]
63	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
64	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
66	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
68	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
69	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	27	62	89	24	24	48	48	26	74	4	15	19

Appendix table 8 (cont'd)

Set no.	77			78			79			80		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
6	[illegible]	[illegible]	10	[illegible]	[illegible]	178	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	27	[illegible]	[illegible]	159	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	19	[illegible]	[illegible]	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	1	[illegible]	[illegible]	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	0	1
32	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0	0
33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0	0
34	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	1	6	0	1	1
35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2	1	3	0	1	1
36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1	2	0	3	3
37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1	2	0	0	0
38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1	2	3	1	4
39	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	1	1	1	0	1
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0	0	0	0	0
41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	0	1	0	1	1
42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	0	1	0	0	0
43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	0	4	0	0	0
44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1	2	0	0	0
45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	0	4	1	0	1
46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	0	3	0	0	0
47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6	3	9	0	0	0
48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6	3	9	0	0	0

Appendix table 8 (cont'd)

Set no. / Fork length (cm)	77			78			79			80		
	M	F	T	M	F	T	M	F	T	M	F	T
49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	3	8	0	0	0
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13	5	18	0	0	0
51	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9	10	19	0	0	0
52	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12	17	29	0	2	2
53	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14	8	22	0	[illegible]	0
54	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13	8	21	0	[illegible]	0
55	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	16	21	0	[illegible]	0
56	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8	8	16	0	[illegible]	0
57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	9	12	0	[illegible]	0
58	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	13	13	0	[illegible]	0
59	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	7	7	0	[illegible]	0
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	5	5	0	[illegible]	0
61	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	4	5	0	[illegible]	0
62	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1	0	[illegible]	0
63	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1	0	[illegible]	0
64	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	0
65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	1
66	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
68	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
69	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	0	0	57	0	0	371	119	128	247	7	10	17

Appendix table 8 (cont'd)

Set no. / Fork length (cm)	81			85			86			87		
	M	F	T	M	F	T	M	F	T	M	F	T
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	1	1	-	-	-	-	-	-	-	-	-
25	-	0	0	-	-	-	-	-	-	-	-	-
26	-	0	0	-	-	-	-	-	-	-	-	-
27	-	0	0	-	-	-	-	-	-	-	-	-
28	-	0	0	-	-	-	-	-	-	-	-	-
29	-	0	0	-	-	-	-	-	-	-	-	-
30	-	0	0	-	-	-	-	-	-	-	-	-
31	-	0	0	-	-	-	-	-	-	-	-	-
32	2	0	2	-	-	-	-	-	-	-	-	-
33	1	0	1	-	-	-	-	-	-	-	-	-
34	1	1	2	-	-	-	-	-	-	3	1	4
35	3	4	7	1	-	1	-	-	-	4	2	6
36	7	5	12	0	-	0	-	-	-	7	5	12
37	11	5	16	0	-	0	-	-	-	2	2	4
38	7	4	11	0	1	1	-	-	-	4	3	7
39	5	3	8	0	0	0	-	-	-	1	0	1
40	5	2	7	1	0	1	-	-	-	0	0	0
41	1	3	4	0	0	0	-	-	-	1	0	1
42	2	2	4	0	0	0	-	-	-	0	2	2
43	3	3	6	0	0	0	-	-	-	4	1	5
44	2	4	6	0	0	0	2	-	2	5	2	7
45	3	2	5	0	0	0	1	-	1	2	0	2
46	5	5	10	0	0	0	3	-	3	4	5	9
47	2	2	4	1	0	1	1	3	4	3	3	6
48	6	5	11	1	0	1	4	1	5	6	4	10

Appendix table 8 (cont'd)

Set no. / Fork length (cm)	81			85			86			87		
	M	F	T	M	F	T	M	F	T	M	F	T
49	6	3	9	1	0	1	0	3	3	4	9	13
50	6	5	11	1	0	1	6	4	10	6	7	13
51	11	5	16	0	1	1	9	2	11	8	7	15
52	6	6	12	0	1	1	6	6	12	11	10	21
53	7	6	13	2	0	2	11	3	14	7	10	17
54	8	9	17	1	1	2	6	6	12	8	10	18
55	10	11	21	0	1	1	10	10	20	8	8	16
56	5	7	12	2	0	2	3	7	10	5	10	15
57	1	8	9	0	2	2	8	7	15	6	10	16
58	0	9	9	1	0	1	7	13	20	9	10	19
59	1	6	7	0	1	1	3	8	11	6	6	12
60	0	2	2	0	0	0	2	7	9	6	12	18
61	1	5	6	0	1	1	0	5	5	1	11	12
62	"	2	2	1	1	2	1	6	7	2	10	12
63	"	1	1	"	0	0	"	3	3	1	4	5
64	"	1	1	"	1	1	"	1	1	"	4	4
65	"	"	"	"	1	1	"	0	0	"	5	5
66	"	"	"	"	"	"	"	0	0	"	2	2
67	"	"	"	"	"	"	"	0	0	"	1	1
68	"	"	"	"	"	"	"	1	1	"	0	0
69	"	"	"	"	"	"	"	"	"	"	1	1
Total	128	137	265	13	12	25	83	96	179	134	177	311

Appendix table 8 (cont'd)

Set no. Fork length (cm)	89			Total		
	M	F	T	M	F	T
6	-	-	-	223	-	223
7	-	-	-	243	-	243
8	-	-	-	65	-	65
9	-	-	-	10	-	10
10	-	-	-	2	-	2
11	-	-	-	4	-	4
12	-	-	-	1	-	1
13	-	-	-	0	-	0
14	-	-	-	0	-	0
15	-	-	-	0	-	0
16	-	-	-	0	-	0
17	-	-	-	0	-	0
18	-	-	-	0	-	0
19	-	-	-	0	-	0
20	-	-	-	0	-	0
21	-	-	-	0	-	0
22	-	-	-	2	1	3
23	-	-	-	0	0	0
24	-	-	-	0	1	1
25	-	-	-	0	1	1
26	-	-	-	0	0	0
27	-	-	-	0	0	0
28	-	-	-	0	0	0
29	-	-	-	0	0	0
30	-	1	1	0	1	1
31	-	0	0	1	0	1
32	1	0	1	3	0	3
33	0	0	0	1	0	1
34	5	0	5	21	6	27
35	1	7	8	17	16	33
36	10	5	15	28	23	51
37	9	7	16	30	24	54
38	5	9	14	31	26	57
39	1	1	2	11	11	22
40	1	0	1	9	5	14
41	2	2	4	6	8	14
42	1	0	1	4	5	9
43	0	0	0	12	4	16
44	4	2	6	14	9	23
45	2	1	3	17	4	21
46	2	2	4	19	14	33
47	2	3	5	24	19	43
48	6	5	11	39	22	61

Appendix table 8 (cont'd)

Set no. Fork length (cm)	89			Total		
	M	F	T	M	F	T
49	3	3	6	33	27	60
50	3	2	5	49	40	89
51	1	1	2	50	43	93
52	2	3	5	48	61	109
53	2	2	4	57	47	104
54	2	1	3	49	55	104
55	2	0	2	45	59	104
56	3	1	4	26	50	76
57	0	4	4	21	52	73
58	1	2	3	18	54	72
59	"	0	0	10	33	43
60	"	1	1	8	33	41
61	"	0	0	3	27	30
62	"	2	2	4	24	28
63	"	"	"	1	9	10
64	"	"	"	0	7	7
65	"	"	"	1	6	7
66	"	"	"	"	2	2
67	"	"	"	"	1	1
68	"	"	"	"	1	1
69	"	"	"	"	1	1
Total	71	67	138	712	832	2092

Appendix table 9. Length frequency of walleye pollock by set, ARCTIC HARVESTER, June 1978.

Fork Length (cm)	Set no. 64 M	64 F	64 T	77 M	77 F	77 T	78 M	78 F	78 T	81 M	81 F	81 T
17	-	-	-	1	-	1	-	-	-	-	-	-
18	-	1	1	0	2	2	-	-	-	-	-	-
19	-	0	0	2	3	5	-	-	-	-	-	-
20	1	0	1	2	2	4	-	-	-	1	-	1
21	0	1	1	0	3	3	-	-	-	1	-	1
22	0	2	2	4	1	5	-	-	-	0	-	0
23	1	0	1	1	0	1	-	-	-	0	-	0
24	0	0	0	3	3	6	-	-	-	0	-	0
25	0	1	1	7	2	9	-	-	-	0	-	0
26	0	0	0	1	2	3	-	-	-	0	-	0
27	0	1	1	1	0	1	-	-	-	0	-	0
28	0	0	0	0	0	0	-	-	-	0	-	0
29	0	0	0	0	1	1	-	-	-	0	-	0
30	0	0	0	0	0	0	-	-	-	0	-	0
31	0	0	0	0	0	0	1	-	1	0	-	0
32	0	0	0	0	3	3	1	-	1	0	-	0
33	1	0	1	1	1	2	1	-	1	0	-	0
34	0	0	0	3	0	3	2	-	2	0	-	0
35	0	0	0	6	1	7	2	-	2	0	-	0
36	0	0	0	4	3	7	0	-	0	0	-	0
37	0	1	1	5	3	8	1	1	2	0	-	0
38	0	0	0	4	2	6	0	1	1	0	-	0
39	2	1	3	2	4	6	2	3	5	0	-	0
40	2	1	3	5	3	8	3	8	11	0	-	0
41	0	1	1	10	2	12	3	1	4	0	-	0
42	1	2	3	6	1	7	1	6	7	0	1	1
43	1	0	1	6	4	10	5	1	6	0	0	0
44	0	0	0	7	4	11	7	1	8	0	0	0

Appendix table 9 (cont'd)

Fork Length (cm)	Set no. 64 M	64 F	64 T	77 M	77 F	77 T	78 M	78 F	78 T	81 M	81 F	81 T
45	2	2	4	4	2	6	6	7	13	1	0	1
46	0	1	1	9	2	11	5	6	11	0	1	1
47	1	1	2	4	9	13	4	10	14	0	1	1
48	5	2	7	6	4	10	10	8	18	0	1	1
49	8	4	12	7	7	14	10	14	24	0	0	0
50	7	7	14	12	8	20	11	5	16	1	2	3
51	5	4	9	15	9	24	13	9	22	3	2	5
52	12	3	15	15	10	25	17	13	30	4	1	5
53	23	6	29	14	10	24	17	13	30	8	3	11
54	27	24	51	12	26	38	21	16	37	8	3	11
55	18	13	31	18	18	36	17	15	32	12	8	20
56	9	19	28	10	17	27	16	21	37	10	6	16
57	14	26	40	7	18	25	14	21	35	8	11	19
58	9	20	29	1	16	17	5	23	28	1	7	8
59	4	17	21	1	22	23	5	22	27	2	7	9
60	2	13	15	1	9	10	6	8	14	2	7	9
61	0	12	12	2	5	7	1	7	8	1	4	5
62	2	14	16	0	5	5	-	6	6	-	4	4
63	1	6	7	1	2	3	-	3	3	-	4	4
64	1	3	4	-	-	-	-	2	2	-	2	2
65	1	1	2	-	-	-	-	-	-	-	3	3
66	-	-	-	-	-	-	-	-	-	-	1	1
Total	160	210	370	220	249	469	207	251	458	63	79	142

Appendix table 9 (cont'd)

Fork Length (cm)	Set no. 82 M	82 F	82 T	83 M	83 F	83 T	84 M	84 F	84 T	Total M	Total F	Total T
17	-	-	-	-	-	-	-	-	-	1	-	1
18	-	-	-	-	-	-	-	-	-	0	3	3
19	-	-	-	-	-	-	-	-	-	2	3	5
20	-	-	-	-	-	-	-	-	-	4	2	6
21	-	-	-	-	-	-	-	-	-	1	4	5
22	-	-	-	-	-	-	-	-	-	4	3	7
23	-	-	-	-	-	-	-	-	-	2	0	2
24	-	-	-	-	-	-	-	-	-	3	3	6
25	-	-	-	-	-	-	-	-	-	7	3	10
26	-	-	-	-	-	-	-	-	-	1	2	3
27	-	-	-	-	-	-	-	-	-	1	1	2
28	-	-	-	-	-	-	-	-	-	0	0	0
29	-	-	-	-	-	-	-	-	-	0	1	1
30	-	-	-	-	-	-	-	-	-	0	0	0
31	-	-	-	-	-	-	-	-	-	1	0	1
32	-	-	-	-	-	-	-	-	-	1	3	4
33	-	-	-	-	-	-	-	-	-	3	1	4
34	-	-	-	-	-	-	-	-	-	5	0	5
35	-	1	1	-	-	-	-	-	-	8	2	10
36	-	1	1	-	-	-	-	-	-	4	4	8
37	-	1	1	-	-	-	-	-	-	6	6	12
38	-	0	0	-	-	-	-	-	-	4	3	7
39	1	4	5	-	-	-	-	-	-	7	12	19
40	1	2	3	-	-	-	-	-	-	11	14	25
41	0	1	1	-	-	-	-	-	-	13	5	18
42	4	3	7	-	-	-	-	-	-	12	13	25
43	1	1	2	2	1	3	-	-	-	15	7	22
44	1	2	3	0	0	0	-	-	-	15	7	22

Appendix table 9 (cont'd)

Fork Length (cm)	Set no. 82 M	82 F	82 T	83 M	83 F	83 T	84 M	84 F	84 T	Total M	Total F	Total T
45	2	3	5	1	0	1	0	0	0	16	14	30
46	3	2	5	2	0	2	0	0	0	19	12	31
47	5	2	7	3	0	3	0	0	0	17	23	40
48	7	3	0	2	1	3	0	0	0	30	19	49
49	1	5	6	3	0	3	0	0	0	29	30	59
50	2	2	4	2	0	2	0	0	0	35	24	59
51	2	3	5	1	0	1	1	0	1	40	27	67
52	1	3	4	2	1	3	0	1	1	51	32	83
53	2	4	6	5	2	7	0	0	0	69	38	107
54	6	2	8	8	0	8	0	1	1	82	72	154
55	2	1	3	3	1	4	1	0	1	71	56	127
56	-	2	2	3	5	8	2	0	2	50	70	120
57	-	3	3	1	3	4	0	0	0	44	82	126
58	-	1	1	3	8	11	0	1	1	19	76	95
59	-	0	0	2	1	3	2	1	3	16	70	86
60	-	1	1	-	1	1	-	0	0	11	39	50
61	-	-	-	-	0	0	-	2	2	4	30	34
62	-	-	-	-	0	0	-	-	-	2	29	31
63	-	-	-	-	0	0	-	-	-	2	15	17
64	-	-	-	-	1	1	-	-	-	1	8	9
65	-	-	-	-	-	-	-	-	-	1	4	5
66	-	-	-	-	-	-	-	-	-	-	1	1
Total	41	53	94	43	25	68	6	6	12	740	873	1613